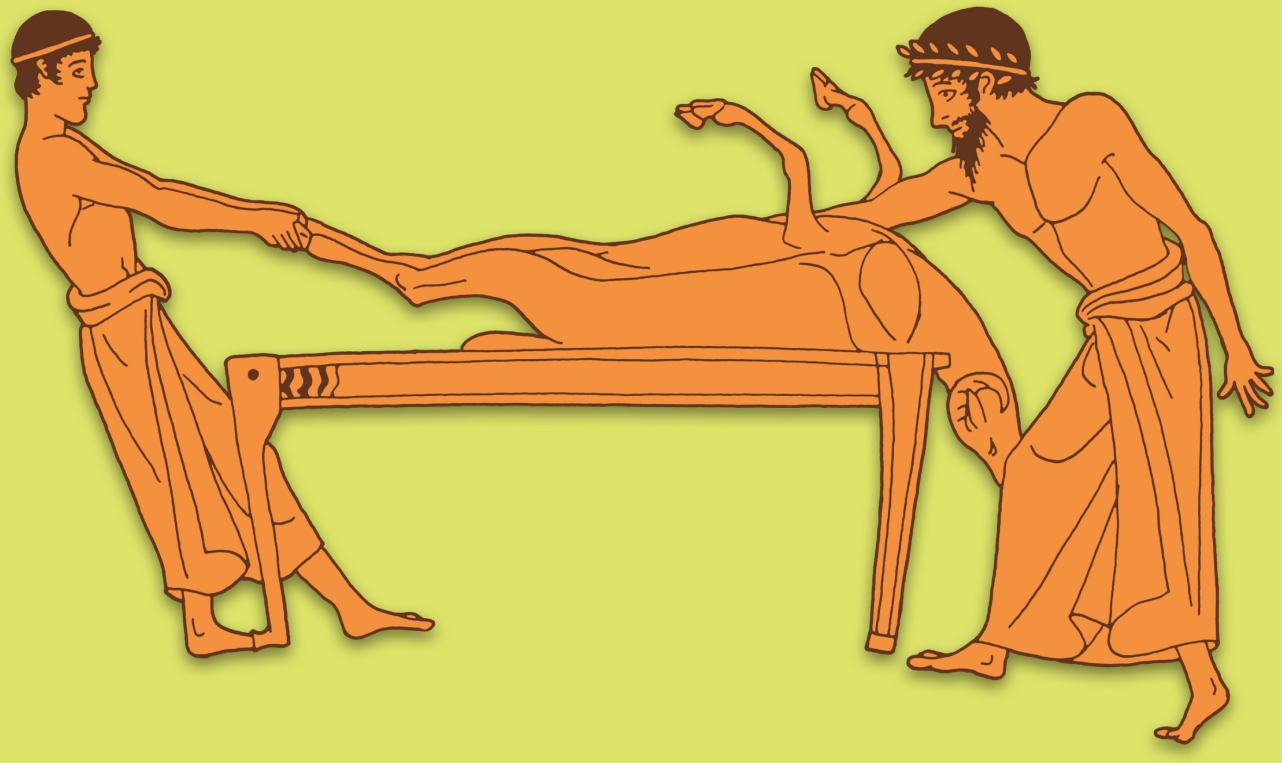
SKRIFTER UTGIVNA AV SVENSKA INSTITUTET I ATHEN, 4°, 60
ACTA INSTITUTI ATHENIENSIS REGNI SUECIAE, SERIES IN 4°, 60

From snout to tail

Exploring the Greek sacrificial animal from the literary, epigraphical, iconographical, archaeological and zooarchaeological evidence

Edited by Jan-Mathieu Carbon & Gunnel Ekroth



STOCKHOLM 2024

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ABSTRACT

Animal sacrifice fundamentally informed how the ancient Greeks defined themselves, their relation to the divine, and the structure of their society. Adopting an explicitly cross-disciplinary perspective, the present volume explores the practical execution and complex meaning of animal sacrifice within ancient Greek religion (*c.* 1000 BC–AD 200).

The objective is twofold. First, to clarify in detail the use and meaning of body parts of the animal within sacrificial ritual. This involves a comprehensive study of ancient Greek terminology in texts and inscriptions, representations on pottery and reliefs, and animal bones found in sanctuaries. Second, to encourage the use and integration of the full spectrum of ancient evidence in the exploration of Greek sacrificial rituals, which is a prerequisite for understanding the complex use and meaning of Greek animal sacrifice.

Twelve contributions by experts on the literary, epigraphical, iconographical, archaeological and zooarchaeological evidence for Greek animal sacrifice explore the treatment of legs, including feet and hoofs, tails, horns; heads, including tongues, brains, ears and snouts; internal organs; blood; as well as the handling of the entire body by burning it whole. Three further contributions address Hittite, Israelite and Etruscan animal sacrifice respectively, providing important contextualization for Greek ritual practices.

Keywords: Greek animal sacrifice, anatomy, division, butchery, body part, multi-disciplinary approaches, zooarchaeology, iconography, epigraphy, texts, cross-cultural comparisons

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BOOK EDITORS

Jan-Mathieu Carbon, Department of Classics, Queen's University 501 Watson Hall, 49 Bader Lane, Kingston, ON, Canada K7L 3N6 (jmc32@queensu.ca) & Gunnel Ekroth, Department of Archaeology and Ancient History, Uppsala University, Box 626, SE-751 26 Uppsala, Sweden (gunnel.ekroth@antiken.uu.se).

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Preface

This book has been long in the making. We would like to thank all the contributors for enthusiastically taking on various parts of the animal body and for delivering stellar manuscripts, but also for their patience and good spirit.

Generous funding from the Riksbankens Jubileumsfond for the Advancement of the Humanities and Social Sciences, Helge Ax:son Johnsons Stiftelse, Stiftelsen Enboms donationsfond at the Royal Swedish Academy of Letters, History and Antiquities, Birgitta Bergquists stipendiefond and Vilhem Ekmans Universitetsfond made this endeavour possible.

We dedicate this volume to the memory of our colleague and friend François Lissarrague, a great scholar, whose work will continue to make images speak.

Gunnel Ekroth and Jan-Mathieu Carbon
11 December 2023

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JAN-MATHIEU CARBON & GUNNEL EKROTH

1. From snout to tail

Dividing animals and reconstructing ancient Greek sacrifice

Abstract

Animal sacrifice fundamentally informed how the ancient Greeks defined themselves, their relation to the divine, and the structure of their society. Adopting an explicitly cross-disciplinary perspective, the present volume explores the practical execution and complex meaning of animal sacrifice within ancient Greek religion (*c.* 1000 BC–AD 200).

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Sacrificing an animal was a central component of ancient Greek religion, an act by which the worshippers communicated with the divine sphere.[1] The anatomy of the animals—usually, though far from exclusively, bovine, ovine, caprine, and porcine—provided an intricate structure through which such rituals could be articulated in different ways. Generally speaking, the diverse rituals we label as "Greek animal sacrifice" entailed some form of cutting or division of the offering. Whether this simply involved slitting the throat to kill or more elaborate forms of butchery, some sort of implement—an axe, a knife, etc.—was used to cut and to begin a process of repartition, which usually was followed by the burning of some parts of the animal and the consumption of others. Normally, the animal was divided between immortals and mortals, marking distinctions in status and character between the recipients.[2] But the sacrifice, division, and distribution of a sacrificial animal could also serve to underscore differences between the human participants, both groups and individuals (such as priests and worshippers).[3]

The reason for studying Greek animal sacrifice with a particular focus on the animal's body is the fundamental importance this ritual had for how the ancient Greeks defined themselves, their relation to the divine, and the structure of their society. To grasp this complex sacrificial reality, we need to use an approach which is as empirically broad as possible, adopts a cross-disciplinary perspective, and goes into detail as to the practical handling of the animal's body. Although the treatment of the animal and its meat, blood, innards, bones, and

[1] Sacrifice as communication with the gods, see Stavrianopoulou 2006; Parker 2011, 124–165; Naiden 2013, 3–38; Ekroth 2019.

[2] An aitiological myth of the most common form of ancient Greek sacrifice, *thysia*, is the feast conducted by Prometheus at Mekone, which according to Hesiod (*Theog*. 556–557) explains why humans burn "white bones" on altars for the gods. A broader conception of Prometheus' gifts can notably be found in the play insecurely attributed to Aeschylus (*PV* 496–499), where "κῶλα completely wrapped in fat and a long ὀσφῦς" are burned for the gods, from which humans can then interpret "fiery (divine) signs". See *inter alia* Detienne & Vernant 1989; Ekroth 2009; Stocking 2017; Ekroth 2019; cf. also Carbon 2017a and 2021.

[3] See Ekroth 2008, 267–276; 2019. For priests and ritual functionaries, see also Svenbro 1987; Le Guen-Pollet 1991; and the recent survey of Carbon 2017b. Worshippers: see notably Paul 2018.

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skin, have been touched upon by individual studies on animal sacrifice produced during the 20th and 21st centuries, a fresh look, adopting an interdisciplinary approach and making use of the full scope of ancient sources, has not yet been undertaken.[4] The present volume stems from an international conference organized at Uppsala University in December 2016, which focused on animal sacrifice in ancient Greek religion (*c.* 1000 BC–AD 200) from a cross-disciplinary perspective. Its mission was to explore the Greek sacrificial animal from the literary, epigraphical, iconographical, archaeological and zooarchaeological evidence. Taking our inspiration from recent culinary movements aiming to use the "whole beast" in the preparation of food,[5] we called this investigation of the sacrificial animal *From snout to tail*, a survey of the body—from one end to the other—that remains an apt designation for the resulting volume.

The conference had two specific aims. Firstly, to clarify in detail the use and meaning of the body parts of the animal within the sacrificial ritual. This involves a thorough study of ancient Greek terminology used in literary texts and inscriptions, representations on pottery and reliefs, and animal bones found in sanctuaries. The purpose of such an in-depth discussion was to provide new insights into how animal sacrifice for the ancient Greeks worked as a means of communication with the gods, and how it structured their society and established a world-view through the division and handling of the body of the sacrificial animal. The second and partly overlapping aim was of a more methodological character, namely to encourage the use and integration of the full spectrum of ancient evidence in the exploration of Greek sacrificial rituals, which is a prerequisite for understanding the complex use and meaning of Greek animal sacrifice.

Perhaps no single scholar today can manage to have an in-depth knowledge of all the empirical evidence and research pertaining to Greek animal sacrifice. For example, it is important to keep in mind the degree of special competence required to decipher a worn and damaged inscription in a local Greek dialect referring to a ritual action or to determine the animal species and body parts present in a sanctuary from a pile of calcined bones, as well as to distinguish any traces of butchery. Attic vases bearing representations of animal bodies, whole or in part, are not "snapshots" of antiquity nor were they made with a documentary purpose. Their interpretation requires a broad understanding of the iconographic conventions. Furthermore, a knowledge of animal anatomy is important to ascertain what parts are actually shown.

The need to master and explore a specific type of ancient evidence is crucial, but it is also essential to realize that a comprehensive grasp of the ancient phenomena cannot be achieved without the necessary collaboration between scholars from various fields. Therefore, the conference brought together researchers from different academic environments in order to create a "critical mass" for the investigation of the use and meaning of the body parts of the animal within Greek sacrificial ritual. The scholars contributing to this volume not only possess a profound knowledge of the source material, be it literary, epigraphical, iconographical, archaeological, and/or zooarchaeological, but also have a deep interest in ancient Greek religion and particularly in animal sacrifice. A recurrent theme of the conference was the importance of cooperation, most of all between Classical scholars and zooarchaeologists in order to avoid over-simplified and erroneous interpretations of the ancient sources and the anatomy of the sacrificial animals.

The integration of different kinds of empirical evidence follows a long established trend in the study of Greek sacrifice, and several of the participants to this volume incorporate distinct types of ancient sources in their work. The value of such an approach, but also its pitfalls, has been aptly summarized by Folkert van Straten in his seminal work *Hierà kalá* from 1996:

> We need a constant feedback between the different categories of evidence (archaeological, epigraphical, literary) to get the maximum of information from them. That is the approach I have adopted. Admittedly an argument based on such mutual feedback carries a certain risk of circularity, but so does riding a bicycle. As long as one is aware of the mechanics involved it need not be fatal.[6]

Following van Straten's lead, and while remaining conscious of the specific characteristics of separate scientific approaches, we can try to use them in a complementary manner to explore ancient rituals and to point towards new directions of research. The bicycle can even be improved.

On the menu

From the outset, we recognized that a truly exhaustive study of the body of the sacrificial animal was probably impossible. As we have outlined, handling all of the relevant sources at the

[4] For early work on this aspect of Greek animal sacrifice based on the written sources, see Stengel 1910 and Puttkammer 1912. For recent studies, also incorporating a wider range of evidence, see van Straten 1995; Gebauer 2002; Hermary *et al*. 2004; Ekroth 2014. For particular parts of the body, note for example the following: meat: Berthiaume 1982; Ekroth 2008 and 2011; blood: Ekroth 2005; tongues: Kadletz 1981; intestines: Frost 1999; bones: Ekroth & Wallensten 2013.

[5] Most notably, the titles of two works by the British chef Fergus Henderson (1999 and 2004).

[6] van Straten 1995, 9.

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same time is a challenging task. More problematically, in a given context, a part of the evidence is often lacking, for instance literary or epigraphic sources that parallel what one may find in the zooarchaeological or iconographical evidence, or vice versa. Rather than steering our contributors towards distinct parts of the sacrificial animal, in the manner of a handbook for example, we exercised some initial guidance but let the experts single out their particular areas of interest. This approach allowed for the possibility of an overlap between two or more contributions, which, in turn, yields complementary or nuanced approaches to the same part of the animal, making use of different kinds of empirical evidence. Not every part of the sacrificial animal is discussed in the volume, as certain limbs or organs were of greater interest for the participating scholars; in antiquity, similarly, interest tended to concentrate on certain body parts over others (e.g. the head of the animal). Some essays also consider multiple body parts, whether for the sake of comparison or to demonstrate their interrelations. Still others have investigated different uses of the animal body, for instance taking it as a whole rather than anatomized.

Four papers touch on various aspects of legs, whether taken alone or in combination with other body parts. **Jake Morton** focuses on back legs in combination with the tail (*Chapter 2*). These are the two body parts central to *thysia* sacrifice, from which bones were burnt on the altar and from which signs were obtained. Applying past training in butchery as a professional cook, Morton is able to innovatively elucidate the division of the carcass and the use of these parts during the ritual. By interpreting ancient texts—such as Sophocles' *Antigone* (1005–1011) and Aristophanes' *Peace* (1026–1055)—and Attic vase-paintings, but most of all through an extensive use of experimental archaeology, Morton demonstrates how the back legs and the tail in practice formed an anatomically integrated sacrificial unit, a unity which underlined their religious importance. The butchering was accomplished in three phases: first removing the hind section and the innards (*splanchna*); then, separating the tail from the hip; and finally freeing the femur from the leg. Any sharp knife can be used and the division is a fast and smooth process. Morton's extensive experiments with burning fat-wrapped thighbones and tails further clarify the written and iconographical evidence. This supports the argument that, just as these parts were removed together, so they were burnt together, thereby optimizing the use of the fire on the altar and the examination of signs. Morton's experiments also suggest that not only was it easy to accomplish the ritual correctly, it was also simple to understand and to interpret.

Flint Dibble also looks at legs but from a more distinctly zooarchaeological angle, making use of evidence from sanctuaries as well as often overlooked data from settlements in different contexts (*Chapter 3*). From this detailed study of the bone material, it is obvious that the handling of back legs envisioned from the written and iconographical sources entailed more nuances in real life. Burned lower limbs are evidenced in a number of private contexts dating from the Late Bronze Age through the Hellenistic period, showing that the thighbone was not the only part of the leg which was put in the fire. The ritual significance of this action is hard to discern, but the burning of lower legs (occasionally with elements from the head or horns) could reflect an action found in the *Homeric Hymn to Hermes* in relation to ritual cleaning (136–140). In domestic contexts, the bones show that smaller knives were used for butchering and dividing animals. By contrast, the use of cleavers is manifest on bones deriving from large-scale feasting assemblages, for example at Azoria on Crete. This indicates a form of professional butchery, as such implements require practiced skills. Finally, Dibble discusses the absence of cut marks on unburned femora from the Athenian Agora, suggesting that they were removed with particular care. This practice also suggests the work of professional butchers, whose treatment of these parts in a special manner can be seen as an element of the important spectacle that was animal sacrifice and sacrificial feasting.

François Lissarrague applies a more narrow focus on the lower leg, exploring the presence of hoofs in Attic vase imagery and arguing for their importance as a semantic element (*Chapter 4*). The hoof, a non-edible part of a sacrificial animal, appears in different contexts on 6th- and 5th-century-BC vase-paintings. A first group consists of dogs gnawing a hoof which has been separated from the leg. These dogs are often shown lying under the table or couch in banquet scenes, but they also occasionally appear in representations of hunting and Dionysiac settings. Here, the hoof can be taken as a sign referring back to the division and distribution of the animal at a sacrifice, the dog being at the end of this process of consumption. A second and smaller group, only appearing on red-figure vases, are representations of shield devices showing a bird holding a hoof in its beak, a motif tentatively linked to *homolochia*, the stealing of parts from the altar. Finally, the author discusses more common representations, in particular in red-figure scenes, of the handling and distribution of back legs with the thighbones removed. On these legs, the hoof is distinctly rendered, which can be taken as a pictorial strategy to clarify what body part is represented but also as a reference to the distribution of meat which followed a sacrifice.

In another paper dealing notably with legs, **Michael MacKinnon** explores the presence of bones from feet and heads in sacred contexts (*Chapter 5*). The chapter treats burned as well as unburned parts, comparing sacred with non-sacred contexts when possible, in order to test the usefulness of the traditional division of sacrificial faunal remains into altar offerings, consumption debris, and butchery refuse. Emphasizing the need for a clear and reflective methodological

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approach when comparing different find contexts, MacKinnon points to a number of cultural and natural biases that can affect our interpretations of what is ritual or non-ritual. Among the factors that need to be considered when explaining the distribution of the bones are taphonomy, the fact that certain bones such as teeth and lower legs are better preserved, and the idea that feet and heads may have left a sanctuary while still attached to the hide of the animal (or brought there in the same way). Integrating epigraphic evidence, MacKinnon considers other important aspects of the use of the hides (with head and feet attached or without, cf. notably *I.Didyma* 482), such as tanning, sale, and honorific awards (perquisites for cult personnel or others). Holocaustic sacrifices, the consumption of feet and heads during feasting, and the symbolism surrounding the use, display and role of animal feet and heads in antiquity, should also be taken into consideration. Detailed scrutiny of the evidence suggests that, apart from the use of bones for explicit ritual purposes, i.e. the selection of particular elements to burn on the altar, and regardless of the species, there is little distinction to be drawn between ritual and non-ritual deposits when it comes to consumption debris and butchery refuse. These conclusions should invite us to reflect on what defines a bone deposit as sacred or secular apart from the context of the find.

The importance of the animal's head, touched upon in MacKinnon's paper, is explored in three contributions. **Tyler Jo Smith** looks at the representation of horned animals in pre-kill sacrificial scenes on pottery primarily of Attic origin and from the Archaic and Classical periods (*Chapter 6*). Particular attention is paid to the representation of the heads, in order to achieve a better understanding of how vase painters represented sacrificial animals, as well as to the meaning and significance of heads with horns in the iconography. The importance of the head of the animal, evident from the ancient authors, is confirmed by the iconography. Horned animals are prominent already on the "animal style" vases of the 7th century BC and the consistent position of the heads of the animals in the sacrificial scenes from the 6th century BC emphasize the horns even further. The painters draw attention to heads by representing horn-grabbing or "head-hugging" as a significant part of heroic iconography. Horn-grabbing in sacrificial scenes also indicates a forceful gesture of human control over the animals. The importance of the horns is further brought out by the fact that activities and objects tend to converge around the head of the sacrificial animal: horns, hands, and sticks form "visual clusters". Moreover, animal-head vases underline the importance of this body part, and are suggested to have worked as substitutes for, or symbols of, live animals.

Vasiliki Zachari's contribution looks at the animal's head after the conclusion of the ritual, specifically, in the case of bovines, when the head has been transformed into a *bucranium*, by being stripped of most or all of its meat and skin (*Chapter 7*). The analysis is based on Attic red-figure scenes where *bucrania* occur, here taken both as entire heads and as merely pairs of horns. The vase painters emphasize the sacred qualities of the *bucrania* by adorning them with bands, recalling the ribbons decorating the sacrificial animals when they are led to the altar. In scenes of butchery, however, the head occupies a secondary place and is treated like any piece of meat. Most *bucrania* appear together with altars, usually represented above the sacrificial installation. This vertical position marks the close connection between these two elements and functions as a sign of temporality, echoing and commemorating past sacrifices in the same sense as the blood stains on the front of the altar. Together with the sacrificial animal and the altar, the *bucranium* forms a tripartite scheme recalling the cyclical and recurrent process of sacrifice. *Bucrania* also occur in red-figure scenes without altars and here they stand in for the altar, marking ritual space and evoking the performance of animal sacrifice. A more distinctly decorative use of *bucrania* does not appear on pottery until the end of the 4th century BC, shortly after which *bucrania* also start to be used to adorn architectural elements and, more frequently, altars.

This cephalic section of the book is closed by **Stella Georgoudi**'s careful analysis of the rich terminology used for the head in literary texts and inscriptions (*Chapter 8*). Words for the head and its different parts (*kephale*, *hemikraira*—a "half-head", *koruphaia*—the "top of the head", *kephalaion*—a rare word for the head), as well as the tongue, the brain, the snout, the ears, and the cheeks are considered. The aim is to clarify their precise anatomical meaning—a far from easy task considering the rarity of some of these terms. Equally importantly, the investigation concerns how and to which divinities and human agents these parts were distributed. The head or its elements were often granted as a priestly perquisites (sometimes while still attached to the hide, see above) but also sometimes to the gods themselves. A sustained comparison between the literary and the epigraphical sources brings out interesting differences as to how the head and its parts were designated and used. For example, Aristotle's works on the animal realm do not make use of the same terminology as the ritual norms recorded on stone, while the particular association between the tongue and Hermes suggested in the literary record cannot be verified in the inscriptions. Even the main term for the head, *kephale*, which is commonly found in epigraphical sources as a part of the animal included in the priestly perquisites, is rarely mentioned in Athenaeus, as if not considered regular food. Even if a complete understanding of the terminology for the head cannot be reached, due to some terms reflecting local usages or representing variations across different historical periods, Georgoudi concludes by emphasizing the importance of considering literary sources together with inscriptions in order to avoid hasty generalizations.

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After considering the extremities of the animal—protruding limbs, the head—, we proceed to its center in more than one sense, with two papers looking at the internal organs of sacrificial animals, the *splanchna*. **Bartek Bednarek** finds that the role and importance of *splanchna* at animal sacrifice have not been fully grasped by modern scholars (*Chapter 9*). It is evident from both literary and iconographical sources that the *splanchna*, defined by Aristotle as the heart, lungs, liver, spleen, and kidneys, were seen as distinct from the intestines (*entera*) and the meat. This distinction is underlined notably through the examination of an inscribed regulation from Kos (*CGRN* 86, A lines 33–36). At a sacrifice, the *splanchna* received a special ritual treatment, being roasted over the altar-fire in which the share of the gods was burnt, and they were consumed by a select group of participants, underlining subtle distinctions between those belonging to the inner circle of the sacrifice and those who were more peripheral. From an analysis of the evidence for *splanchna* at sacrifices, Bednarek argues that the handling of these parts is to be linked to the burning of the god's portion. Taken together, these high-intensity actions constituted the communication with the gods. These two actions formed the core of the ritual activity, and to grill and eat a share of the *splanchna* marked a particular moment in the ritual, which was considered as the essence of participating in a sacrifice. Evidence from Homer, Aristophanes, and inscriptions is adduced towards this conclusion. At oath-takings also, textual evidence shows that the handling of the *splanchna* served to underline an intense participation in the ritual. In this sense, the handling of the *splanchna* conveyed a deeper religious meaning than the handling of the rest of the meat, which has been the focus of much scholarship on sacrifice. We should here recall that meat could be devoid of sacred connotations, since all meat eaten did not come from animals which had been sacrificed,[7] and that the division, distribution and consumption of meat could often carry social and economic connotations, rather than religious implications.

Vinciane Pirenne-Delforge also looks at *splanchna,* in particular at their function as a marker of what constituted a Greek sacrifice, distinct from non-Greek practices (*Chapter 10*). The chapter offers a thorough review of the role of *splanchna* in the literary and epigraphical record, underlining the link between the *splanchna* and the god's part burnt on the altar: both can be called *hiera*, "sacred things", contrary to the meat consumed after the sacrifice. The assorted *splanchna* could both be eaten by worshippers and offered to the gods as a part of their share; in some places, the *splanchna* were part of the priestly perquisites. In this connection, the paper also addresses the tricky question of whether *splanchna* given as honorific portions, and sometimes placed on sacred tables or "into hands and knees" (presumably of divine statues), were roasted or left raw. Finally, the recently published Hellenistic cult regulation from Marmarini in Thessaly (*CGRN* 225) is discussed, which attests to a sacrifice performed "according to the Greek norm". In order to make clear what a Greek sacrifice entailed at this sanctuary devoted to a goddess of Near Eastern origin, the parts to be burned in the fire (*hiera*) are listed and the organs constituting the *splanchna* are specified, as well as the fact that they are to be cooked. The conclusion that emerges is that the burning of a part of the sacrificial animal for the gods and the handling of the *splanchna* in a particular manner constituted the essential characteristics of a "Greek way of sacrificing". Accordingly, it is correct to speak of a basic mode of "Greek sacrifice" (a *thysia* sacrifice), which is not invalidated by the local traditions and variations that we encounter in the epigraphical evidence.

The two final papers addressing Greek evidence approach the body of the sacrificial animal more as a whole than in its anatomical parts. Blood—a tissue and fluid coursing through the whole body—, together with its role and its use at animal sacrifice, is investigated by **Jennifer Larson** (*Chapter 11*). This research applies a cognitive approach, according to which certain ritual techniques are predicated on a substrate of intuitive beliefs, which are held without conscious reflection. A specific focus is the identification of the conceptual models that allow practitioners to infer that their methods were efficacious during rituals which emphasized the shedding of blood of the sacrificial animals (known as *sphagia* in such a case). Following the agentive model, the blood during the *sphage* (blood-ritual) was used to facilitate interaction or reciprocity with a god or a hero, to influence their mental state for a particular purpose, and to discern their intentions, for example during divination. According to the mechanistic model, on the other hand, the state of mind of the divinity was of little or no importance. Often, for example at purifications or rituals of aversion, there was no specific divine recipient and the blood cannot be seen as an offering. Instead, the blood was used to achieve a result automatically through sympathetic magic. A close review of the ritual contexts where blood was a central component shows that a dual activation of both of these models can be discerned in rituals before battle, oaths, and some types of purifications. This co-existence of agentive and mechanistic models is also evidenced from the use of dual sets of animal victims or an animal and a non-animal offering, such as water.

Gunnel Ekroth's paper discusses the handling of the body of the sacrificial victim at rituals where the entire body was burned: holocausts (*Chapter 12*). A review of the written and archaeological evidence indicates that such rituals were rare among Greek sacrifices. A detailed exploration of the concrete execution of holocausts suggests that the animal body was not always intact when put on the fire and that the carcass

[7] Cf. Ekroth 2007; Parker 2010; Naiden 2013, 241–250.

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may have been flayed, emptied of blood and intestines, and even sectioned before being burned. The fact that holocausts did not necessarily entail the burning of a complete animal has implications for how we are to understand the burning at moirocausts, that is, sacrifices during which a larger part of the animals was burnt than at a *thysia*; moirocausts are evidenced both in the written sources and the zooarchaeological record. In fact, the use of fire at animal sacrifice varied. It could entail the complete destruction of the animal's body, though not always as a whole carcass; the burning of a substantial part of the meat or intestines, but not of the entire animal; or the select burning of particular bones and fat that characterizes a *thysia*. Finally, the ancient evidence for holocaustic burning is discussed in light of an experimental cremation of a lamb and a pig, both intact and unflayed. Considering the substantial amount of time it took to burn the bodies completely, it is argued that Greek holocausts, especially when performed in combination with *thysia*, may have aimed at burning the meat to such an extent that it was unfit for human consumption rather than at completely annihilating the body in the fire. However, a prolonged ritual may also have been desired as it fulfilled a particular purpose when performed in contexts of crisis and purification or for recipients with links to death and pollution.

Seeking to further enrich our investigation, we also sought out experts in other religions of the ancient Mediterranean world to discuss the papers at the conference. We are delighted that they have responded positively to an invitation to contribute this volume, now lending their expertise through research focussed on other areas, which offer many possible reflections on Greek sacrifice. Addressing cultures beyond the Greek world, the three resulting papers create productive counterpoints to the others, underlining both commonalities and differences in the practical use and the conceptual role of animal portions in sacrificial ritual.

An Anatolian perspective is provided by **Alice Mouton** (*Chapter 13*). Mouton offers an overview of rituals involving the burning of animals or body parts found in Hittite texts dated from the 17th to the 12th centuries BC. Based on a review of 22 Hittite cuneiform texts, the chapter discusses the terminology, the concrete actions, and the reasons for performing rituals at which the offerings are burnt, as well as the interaction between different Anatolian traditions. Animals, such as cattle, horses, sheep, goats, piglets or birds could be burned whole or parts of their bodies, such as the heart, the fat, the bones or the hide, could be put in the fire. Some of these rituals took place in the porch of a temple or even inside the building, while others made use of a ritual pit through which communication with the deity was created. Why such rituals were performed is not always evident from the texts but a broad variety of ritual settings can be noted. Invocations of deities made use of burnt sacrifices, serving both to attract and honour them, or to send the offerings to the beyond. The relationship between burnt sacrifice and substitution is also prominently observed in connection with purification and the curing of diseases, in particular for royalty. Other ritual contexts involve getting rid of pollution and handling a divine recipient's anger by burning it away, as well as thanksgiving-offerings made to the gods in connection with military campaigns. Since many Hittite texts deal with burnt animal sacrifice, this material is of great interest for the study of Greek animal sacrifice, which also focusses on burning selected portions (*Chapter 2*) or the entire animal (*Chapter 12*). More broadly, this opens the consideration of transfers of ritual procedures from Anatolia to the west or at least of possible adaptations of such procedures.

Jonathan Greer provides an overview of the "fellowship offering" (*šəlāmîm*) in ancient Israel *c.* 1000–500 BC, with the explicit aim of describing the ritual in a manner that is useful for Classicists, as a point of comparison with the Greek and Roman sacrificial systems (*Chapter 14*). The empirical evidence used is textual, but also archaeological and zooarchaeological, foremost the remains from Tel Dan. With regard to these sources, the chapter also includes a discussion of the complex questions surrounding the date of the biblical texts, namely the Hebrew Bible and the Septuaginta. Focussing on reconstructing the ritual, and through a close comparison with the archaeological evidence, Greer demonstrates that the biblical texts relate to actual ritual practice. For example, the written sources' emphasis on the fact that the selected animal had to be "without blemish" is supported by the bone material. Furthermore, the isotopic study of the animals found at Tel Dan suggests they were raised and grazed in the immediate vicinity, indicating the existence of special flocks kept for sacrifice, which facilitated the control of their purity. Evidence for slaughter, including an "altar kit" consisting of a bowl for collecting the blood, shovels, and a container with ash from animal remains, match the descriptions in the Hebrew Bible of activities at the altar of the temple in Jerusalem. Butchering, little described in the literary record, is clearly demonstrated by the bone material to have taken place within the temple precinct at Tel Dan. The zooarchaeological remains further allow for the identification of separate areas of activity for priests and for common worshippers at this important site. They also reveal traces of butchering and of the preparation of food that involved boiling chopped-up portions, which recalls the cooking methods prescribed in the biblical texts.

In the final paper, **Katie Rask** provides a much-needed survey of Etruscan ritual practices for the division of animal bodies (*Chapter 15*). These have received considerably less attention compared to those related to Greek animal sacrifice. In this discussion of Etruscan sacrifice, Rask applies a framework which highlights the multifaceted patterns of the manipula-

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tion of the animal's body. These gestures were used to bring out the religious potency, symbolism, and social significance of the various parts concerned. The literary, epigraphical, and iconographical evidence is reviewed and evaluated, with particular attention paid to the zooarchaeological remains and their contexts. After killing, the body of the animal was processed and divided, allowing for a range of different uses in the interaction with non-human powers. Animal skins occupy a special role, which is closely associated with the figure of the *haruspex* who is depicted wearing an animal hide, while the importance of skulls is clear from their representation—displayed on altars or tables—and from the special treatment of cranial parts found in the archaeological record. Division into meat-bearing portions as well as the cooking of meat is indicated both by the bone material and the iconographical evidence. Etruscan imagery and Roman texts suggests that inner organs served important divinatory functions, while the construction of altars could point to a particular use of the blood, a practice which hopefully may be confirmed by residue analysis in the future. By orienting the Etruscan evidence within the empirical and theoretical understanding of Greek ritual practices, Rask aptly closes the circle of contributions in this volume.

Where next?

In Uppsala, the conference was followed by a traditional Swedish *Julbord*, the Christmas version of the *Smörgåsbord*. This rich and complex meal includes the consumption of a range of dishes, but was and remains traditionally centred on the pig which was slaughtered for Christmas. All parts of this animal are to be prepared and placed on the *Julbord*: hams and ribs, the flanks prepared as brawn (a cold cut terrine or meat jelly), the grilled head including the snout, the grilled trotters, sausages made of meat and of blood, and a pâté of the liver. As we have readily admitted, the proceedings published here are an inevitably partial survey of the anatomy of the ancient Greek sacrificial animal, but we hope that they may pleasingly echo such a feast, providing both substantive nourishment for research and food for further thought. The investigation of the handling of the body of the sacrificial animal within Greek religion is far from completed by this volume. There are still body parts left to explore, for example, the fat of the animal, specific inner organs such as the heart, or certain anatomical sections such as the breast or the back. More importantly, the interconnections between different portions of the carcass remain to be studied more fully—how these were significant in butchery, in sacrificial ritual, and in other uses of the animal.

Since the whole is demonstrably greater than the sum of its parts, there thus remain a number of broader questions to tackle. As is well known, gathering a group of scholars to address and answer particular questions will typically give rise to new ones as well. In this spirit, we would like to conclude by offering some suggestions for further research within the field of Greek sacrifice, particularly with regard to the handling of the animal.

The use of animals in private religious practices in antiquity, particularly in non-sanctuary settings, remains understudied. For example, we do not know to what degree animals were sacrificed at home or if this was an action preferentially carried out in a sanctuary, as such a location facilitated the communication with the gods but also made the ritual more visible.[8] The written sources are few and it is not clear to what extent Attic vase paintings showing rituals can be interpreted as representing domestic settings. However, animal bones from settlements indicate that there were differences between private and public contexts in terms of the ritual handling of the body of the sacrificial animal: how the carcass was butchered and to what degree the bones bear butchering marks.[9] The zooarchaeological material is essential for the understanding of private ritual actions at home, but sanctuary contexts still remain overrepresented in our evidence, a situation which hopefully can be remedied by future fieldwork. Linked to the question of private religious practices is the complex issue of how one can decide if a body part, whether described, depicted or present in the form of bones, may be considered as sacred or as non-sacred ("profane").[10] Evaluating context is essential in this process.

The degree to which the ancient evidence reflects pan-Hellenic or specific and local sacrificial practices also needs further consideration. Is it correct to speak of common patterns for understanding Greek sacrifice, despite all the diversity of evidence? Paraphrasing Herodotos, can one of the defining factors of "Greekness" be said to be sacrifice (*thysia*), and can this be viewed as cohering with the definition of a sacrifice according to the "Greek norm", evidenced in the recently published cult regulation from Marmarini?[11] This interplay between animal sacrifice as a practice performed in a manner common for all Greeks and as a ritual embodying, or being used to bring out, local idiosyncrasies would profit from

[8] On the evidence for animal sacrifice in domestic settings, see Ekroth 2017.
[9] For efforts to investigate domestic or other non-sanctuary contexts, cf. here Dibble and MacKinnon, *Chapters 3* and *5*.
[10] Several of the papers here broach this question in different ways: in *Chapter 4* Lissarrague considers sacred and non-sacred contexts for the consumption of the hoof; in *Chapter 5* MacKinnon provides a zooarchaeological analysis which raises the issue of "sacrality" in a broad perspective; in *Chapter 7* Zachari notes that a *bucranium* can serve as a marker of sacred (altar) space.
[11] Hdt. 8.144.2 (common *thysiai* stressed in a reported speech of the Athenians). For the Marmarini cult regulation, see Decourt & Tziaphalias 2015; Parker & Scullion 2016; Bouchon & Decourt 2017; *CGRN* 225. Cf. Pirenne-Delforge in this volume, *Chapter 10*.

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further studies. In particular, we need to reflect on how we can treat the available ancient evidence in all of its diversity. Ancient authors often speak of animal sacrifice on a general level, which tends to imply public contexts such as sanctuaries. They only occasionally acknowledge local variations and private practices, which must have been essential for the people performing the rituals.[12] Moreover, some of our evidence is locally circumscribed. Athenocentrism remains a problem, since most of the iconographical and a large part of the epigraphical sources originate from Athens and date from the 6th to 4th centuries BC.[13] Conclusions based mainly on this material could potentially reflect an understanding of Athenian rather than of Greek religion.[14] The zooarchaeological material demonstrates that the sacrificial patterns known from Athens were repeated at other locations but also that there were alternative ways of butchering and burning.[15] Such local ritual practices can be distinguished from the epigraphical evidence as well, and need to be explored to a greater extent in connection with the animal bones.[16] We need to carefully reflect on the validity of generalizing from evidence deriving from a particular geographical and chronological range. This point ties into the broader methodological issue of how to reconcile our different pieces of evidence—literary texts, inscriptions, images, and animal bones—with all of their attendant problems; in short, implementing van Straten's famous challenge of learning how to "ride the bicycle".[17] This is a central issue which is consistently raised in this volume and which remains at the core of the challenge of deepening and broadening our understanding of Greek sacrifice.

The amount of evidence available is also an important factor in the pursuit of these investigations, namely whether this evidence will be or can be increased. The literary evidence for animal sacrifice is more or less constant and the iconographical material is augmented only at a slow pace. The epigraphical material can become enriched in a remarkable manner, even with a single inscription: this is the case with the new ritual norm from Marmarini in Thessaly.[18] Apart from increasing the empirical evidence from certain contexts, such as zooarchaeological material from domestic settings, experimental archaeology can be used to contribute new information regarding the butchering and burning of the animal.[19] Complementing visual and written depictions, practical tests involving burning fat-wrapped bones have yielded a better understanding of how ancient humans determined the gods' reactions to the sacrifice.[20] To cite only another example, altars made of horns, mentioned as extraordinary in ancient texts, have been explained by practical experiments, which show that they can easily be constructed if the goats' heads are butchered so that the result will be a pair of horns.[21] Although experimental archaeology has had a mixed reception among scholars over the years, it can be a useful tool in expanding our understanding of ancient animal sacrifice, as long as the methods are clearly considered and presented in order for the results to be valid.

One of the more promising areas of future study is to orient Greek animal sacrifice in a broader chronological and geographical setting. The evidence for animal sacrifice within the Aegean Late Bronze Age is constantly increasing, and some contexts, such as the ash altar on Mt Lykaion, show that the burning of thighbones and tails characteristic of historical *thysia* sacrifice was practiced at least from the end of the Mycenaean period.[22] On the other hand, some Late Bronze Age zooarchaeological assemblages emphasize different sections of the body than those found in the deposits from the historical period, as well as other species and other degrees of burning.[23] The question of how the Bronze Age rituals relate to the sacrificial actions found in the Homeric epics and evidenced in the historical period, what was inherited and what was new, would profit from being revisited in light of this growing body of evidence.[24]

Even if the burning of specific bones during animal sacrifice seems to have been a practice particular to the area of the Aegean, Greek animal sacrifice did not exist in a vacuum and the complex issue of relations between Greek ritual practices and those of neighbouring cultures certainly needs more work. Some attempts have been made earlier, and a few further steps

[12] See the distinctions between the literary and epigraphical sources brought out here by Georgoudi in *Chapter 8*.
[13] The Athenian evidence clearly dominates both van Straten's (1995) and Gebauer's (2002) major studies of the iconography of sacrifice.
[14] For work on sacrifice based on material from other locations, see Scheffer (1992). Cf. also Smith's contribution in this volume, *Chapter 6*, which tries to make use of as wide a variety of iconographical sources as possible. On the possibilities offered by the richness of the Athenian evidence, see Parker 1996 and 2005.
[15] Cf. again Dibble and MacKinnon, *Chapters 3* and *5*.
[16] For a discussion of the homogeneity or heterogeneity of inscribed ritual norms, arguing against deeper or substantive regional differences in Greek sacrificial practice, see Parker 2018.
[17] van Straten 1995, 9; see above (with *note 6*) for the relevant passage.
[18] *CGRN* 225. See above with *note 11*.
[19] For bones from domestic settings, see Dibble and MacKinnon in this volume, *Chapters 3* and *5*; for practical experiments, cf. the contributions by Morton and Ekroth, *Chapters 2* and *12*.
[20] Morton 2015. These experiments also suggest that the main phase of the *thysia* ritual was brief, lasting no longer than 15 minutes.
[21] Forstenpointner 2000; Forstenpointner *et al.* 2013.
[22] For the evidence from Mt Lykaion, see Starkovich *et al.* 2013, 508–511; Romano & Voyatzis 2014, 569–652, esp. 614–615; Starkovich 2014, 644–648; Romano & Voyatzis 2021, 4–7. See also the material from Kalapodi, where sacrum bones and tails are lacking in the Late Helladic IIIC levels: Felsch 2001, 196–197.
[23] Pylos: Isaakidou *et al.* 2002; Halstead & Isaakidou 2004. Methana: Hamilakis & Konsolaki 2004. Iklaina: Cosmopoulos 2015. Eleusis: Cosmopoulos & Ruscillo 2014.
[24] For a discussion of burnt animal sacrifice in Mycenaean cult, see Whittaker 2007 (now modified by more recent discoveries).

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are taken in this direction in this volume by specialists on the ritual practices of other cultures.[25] The possible influx or influence of rituals from Anatolia during the Late Bronze Age and Early Iron Age warrants further study.[26] The similarities in the burnt animal sacrifice between the Greeks and the Israelites are particularly intriguing, although the fundamental differences should not be overlooked.[27] Greek links with the Levant need to be taken into consideration as well. The new ritual norm from Marmarini, which lays down the ritual actions within a cult of Near Eastern deities in Greece and defines what is called a "Hellenic" sacrifice, shows that there was an awareness of distinct ways of treating the animal's body that corresponded to different cultural and religious contexts.[28] Finally, the relation of Greek rituals to Etruscan sacrifice is also of interest.[29] Considering the number of Attic vases exported to this region, which often included scenes of sacrifice, how were these images perceived and understood in an Etruscan context? It has been suggested that certain motifs were preferred by the Etruscan buyers or even commissioned by the Etruscans, but the role of sacrificial scenes in this material should be carefully evaluated.[30] Similarly, the connections between Greek and Roman animal sacrifice, if any, also merit further consideration.[31]

In sum, Greek animal sacrifice deserves to be studied in a wider variety of contexts, both analytically and holistically. By taking the full range of evidence into account while keeping in mind the idiosyncrasies of each category, by evaluating similarities and differences, and by adopting alternately a specific focus or a broad chronological and geographical approach, this volume contributes to the ongoing process of elucidating an ancient ritual in all of its coherence yet complexity, while also pointing the way towards new directions of research.

JAN-MATHIEU CARBON
Department of Classics
Queen's University
jmc32@queensu.ca

GUNNEL EKROTH
Department of Archaeology
and Ancient History
Uppsala University
gunnel.ekroth@antiken.uu.se

[25] See the contributions by Mouton, Greer and Rask, *Chapters 13*, *14* and *15*.
[26] For examples of such possible influences, see West 1997, 33–60; Collins 2002; 2006; Bachvarova 2016.
[27] Ekroth 2018. One example of an evident difference between Greek and Israelite sacrifice is that, while the Greeks would eat the blood of the animal, this is strictly forbidden in the Hebrew Bible.
[28] This is also clear from Dionysius of Halikarnassos' description (1.30.3–4) of Greek in contrast to Roman sacrifice, as discussed by Pirenne-Delforge in this volume, *Chapter 10*.
[29] A first important step has been taken here by Rask, *Chapter 15*.
[30] See Gebauer 2002, 341–351, on scenes of the inspection of the liver being targeted for the Etruscan market. For further recent studies in this connection, see Bundrick 2014, 657, 660; 2019.
[31] For Roman sacrificial ritual, see the work by Prescendi 2007; Schultz 2016; 2018 and MacKinnon 2023. Schultz is presently exploring Roman sacrifice in detail, including the Roman view of Greek ritual as well as other foreign rituals.

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JAKE MORTON

2. From the butcher's knife to god's ears

The leg and tail in Greek sacrifice

> Τὸ πάλιν κατ' εἴδη δύνασθαι διατέμνειν κατ' ἄρθρα ᾗ πέφυκεν, καὶ μὴ ἐπιχειρεῖν καταγνύναι μέρος μηδέν, κακοῦ μαγείρου τρόπῳ χρώμενον
>
> Being able to cut it [a speech] up again, form by form, according to its natural joints, and not try to break any part into pieces, like an inexpert butcher.
>
> Plato, *Phaedrus* 265e 1–3 (transl. Rowe 1986)

Abstract

This paper argues that, throughout the process of Greek sacrifice, the leg and tail formed a single integrated unit that was both practical and deeply religious. It has long been accepted that thighs and tails were burned on altars in ancient Greece and that this act was where communication with the gods took place, thus forming one of the most important elements of ancient Greek sacrifice. However, up to this point the leg and tail have not been treated as elements of a single holistic unit. Through reinterpretation of textual and iconographic evidence, combined with my study of butchery and an extensive experimental archaeological project involving the burning of thighs and tails, the thigh and tail are shown to form a single sacrificial unit from the butchering of the sacrificial animal, through being burnt on the altar, until they conveyed communication with the divine.

Keywords: Greek animal sacrifice, experimental archaeology, butchery, leg and tail unit, femur, wrapped thighbone, burning, fire, altar, sign

https://doi.org/10.30549/actaath-4-60-02

In ancient Greek animal sacrifice, the interaction between man and the gods took place at the altar, where the thighbones, tails, and *splanchna* were roasted. This paper focuses on the leg and tail of the sacrificial victim and argues that throughout the process of Greek sacrifice, the leg and tail formed a single integrated unit from the stages of butchery, through the preparations for the rituals at the altar, the burning on the altar, and the way that the leg and tail expressed communication with the divine. Throughout this process, the leg and tail will be shown to be elements of this holistic unit due to both practical and religious concerns.

Textual, iconographic, and zooarchaeological evidence

Homer (*Il.* 1.460–461, 2.423–424; *Od.* 3.457–458, 12.361–362) first discusses the burning of fat-wrapped thighbones on the altar as a key component of sacrifice. Aeschylus (*PV* 496–499), Sophocles (*Ant.* 1005–1011), and Aristophanes (*Av.* 1230–1233) attest to the practice of burning fat-wrapped thighbones on altars continuing through the Classical period. Bolstering this textual evidence, three vases have been identified as depicting a priest placing a fat-wrapped thighbone on an altar, and one as depicting a wrapped thighbone already on the altar (*Fig. 1*).[1]

[1] Priest placing a fat-wrapped thighbone on altar: Frankfurt, Archäologisches Museum VF ß 413, *c.* 450–440 BC, *BAPD* 275463; van Straten

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Fig. 1. Left: Attic red-figure bell krater, c. *450–425 BC, Painter of London E 494. London, British Museum E 494. Photograph: © Trustees of the British Museum. Right: after van Straten 1995, fig. 124.*

Concerning tails, Aristophanes (*Pax* 1054–1055) portrays a sacrificial scene at an altar, in which the character Trygaios refers to what is roasting on the altar and says "the tail is doing nicely". van Straten has convincingly demonstrated that images on vases of a curled object on an altar depict a tail "doing nicely"—namely, curling back on itself while being roasted on the altar (*Figs. 2* and *3*).[2] The zooarchaeological evidence from excavations of altars and sanctuaries, including the ash altar on Mt Lykaion in Arcadia, the altar of Aphrodite Ourania in the Athenian Agora, the Artemision at Ephesos, and the Sanctuary of Apollo Hylates at Kourion in Cyprus, demonstrates that ancient Greeks were burning thighbones and tails on altars as part of sacrificial ritual.[3]

Experimental archaeology

To better understand the rituals performed at the altar, I conducted experiments attempting to recreate them. At the American School for Classical Studies at Athens, along with my colleague Daniel Diffendale, I built an *eschara*, a ground level altar.[4] Using training in butchery which I acquired during my ten years working as a professional cook, I removed the thighbones and tails from legs of lambs between 8 and 18 months old and then studied how they burned. There have been previous attempts to explore sacrifice from a practical perspective.[5] However, my project addressed new research questions and was designed to build up a larger body of data through repetition. Over 22 events between 8 December 2012 and 13 May 2014, I burned 38 lamb thighbones, 36 lamb tails, and two oxtails.

First phase of the butchery process

After the sacrificial victim was killed, the first step in the butchery process was to open up the chest cavity and take out the internal organs, including the *splanchna* (the heart, lungs, liver, spleen, and kidneys[6]) and the omentum (a sheet of fatty membrane that hangs down from the stomach). Organ removal

1995, 178, fig. 126. St. Petersburg, State Hermitage Museum 774, *c.* 440–420 BC, *BAPD* 215154; van Straten 1995, V204, fig. 127. Paris, Musée du Louvre G 496, *c.* 425–400 BC, *BAPD* 215758; van Straten 1995, V200, fig. 152. See Forstenpointner 2003; Ekroth 2013a; Morton 2015.

[2] van Straten 1988; 1995, 118–128 with catalogue of images of tails on p. 120.

[3] Mt Lykaion: Starkovich *et al.* 2013; Starkovich 2014. Aphrodite Ourania: Reese 1989. Artemision at Ephesos: Forstenpointner 2003. Kourion: Buitron-Oliver 1996; Reese 2012. For a discussion of the importance of zooarchaeology for understanding sacrificial rites, see Ekroth 2017.

[4] For discussion of the *eschara*, see Ekroth 2002, 25–59, esp. 58–59. For the image closest to the altar we built, see the Attic red-figure Panathenaic amphora by the Kleophon Painter (440–420 BC), Darmstadt, Hessisches Landesmuseum A 1969.4 (478), *BAPD* 215188; van Straten 1995, V173, fig. 146.

[5] See e.g. Jameson 1966; 1986; Buikstra & Swegle 1989; Forstenpointner 2003; Forstenpointner *et al.* 2013; Ekroth 2009; 2013a; 2013b; 2017.

[6] Arist. *Part. an.* 3.3.665a28–672b8 defines and discusses the *splanchna*. See Bednarek and Pirenne-Delforge in this volume, *Chapters 9* and *10*.

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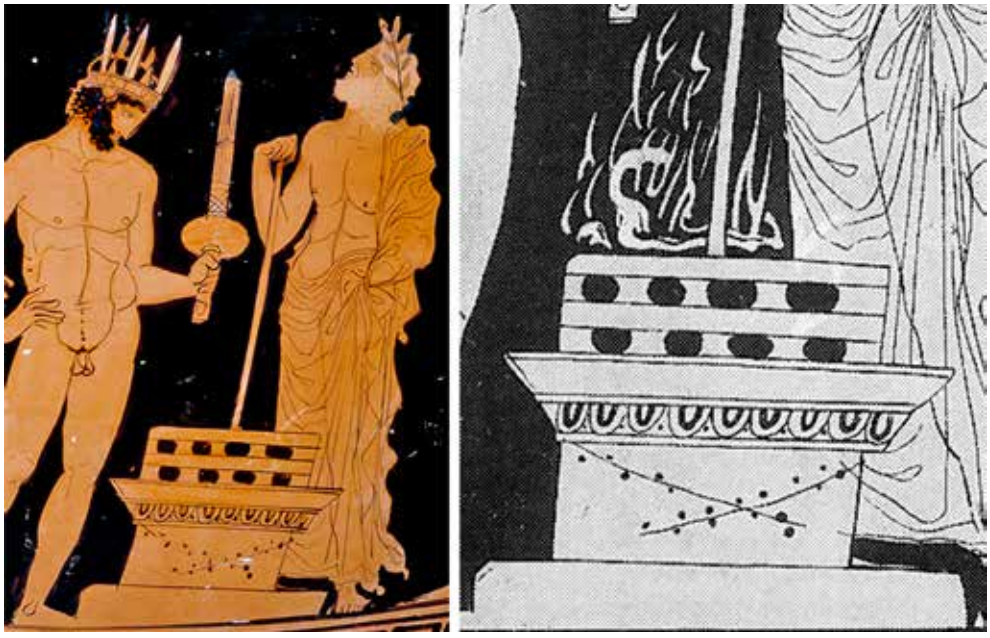

Fig. 2. Left: Attic red-figure bell krater, c. *425–400 BC, Nikias Painter. London British Museum 98.7-16.6. Photograph: © Trustees of the British Museum. Right: after van Straten 1995, fig. 142.*

could be done with the animal lying flat on its back or hanging, but vase imagery indicates that it was likely done with the animal lying on its back.[7] This step has both practical and religious components: practical, as the organs need to be quickly removed from the animal to avoid spoilage of the meat;[8] and religious, as the organs can promptly be examined by a seer and the *splanchna* removed and taken to the altar.[9] In the next step, the skin and head were removed. This was most likely done with the animal hanging, due to the greater ease in skinning a hanging animal.[10] To do this, the victim was first hung upside-down by the gambrel cord or Achilles tendon, the large tendon that connects the calf muscle to the hock. In modern butchery, hooves are removed at this stage as well. However, Greek vase imagery often portrays legs of meat with the hoof still attached, likely to indicate the sacral value of the leg.[11] This first stage of butchery is well represented by a photograph of a butcher in action along the roadside near Tbilisi, Georgia (*Fig. 4*). Note the hooves to the left of the butcher, the hide in the foreground, and the head behind the bucket. The butcher is about to throw

Fig. 3. Attic red-figure kylix, c. *475–450 BC, Pan Painter. Oxford, Ashmolean Museum 1911.617. Photograph: © Ashmolean Museum, University of Oxford.*

internal organs that have been removed from the carcass into the river.

Once the internal organs, head, and skin have been removed, the next step is to cut the carcass in half lengthwise through the spine. From my experience talking with and observing butchers in Greece and Albania, the technique entails hanging mammals of all sizes by the gambrel cord on one leg, grabbing the other leg with one hand and cutting length-

[7] See e.g. Bonn, Akademisches Kustmuseum 62, *c.* 530 BC, *BAPD* 42076; van Straten 1995, V150, fig. 120. Ferrara, Museo Nazionale di Spina T 256 b VP, *c.* 470–460 BC, *BAPD* 202766; van Straten 1995, V152, fig. 119. Warsaw, National Museum 142464A, *c.* 475–450 BC, *BAPD* 209851; van Straten 1995, V153, fig. 121. Rome, Villa Giulia, no inv. number (Ricci Hydria), *c.* 525–500 BC, van Straten 1995, V154, fig. 122.

[8] Danforth 2014a, 84; 2014b, 90.

[9] For the use of *splanchna* at the altar, see van Straten 1995, 131–134.

[10] See Yami 2009; Heinz 1991; Danforth 2014b, 86–89 and 206–218.

[11] Tsoukala 2009; Ekroth 2013a, 21–22.

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Fig. 4. Roadside butchers near Tbilisi, Georgia. Photograph: Sarah C. Murray.

Fig. 5. Halved pig carcass. From: Jonsson-Ekegårdh & Hallman-Haggren 1949, pl. 20.

wise down the spine with a large knife or cleaver in the other hand.[12] One makes the first cut where the base of the tail enters the body. Then one continues cutting lengthwise through the spine, resulting in a carcass split into two halves, but with the complete tail only on one of the halves. A Swedish cookbook from the 1940s shows half the carcass of a pig split lengthwise along the spine with the entire tail visible (*Fig. 5*).

An Apulian red-figure vase now in Madrid depicts a butcher with a large knife (*Fig. 6*).[13] Even taking into account potential exaggeration on the artist's part, this image depicts a knife large enough to sever a pig's head or cut a pig's head in half (whichever is being depicted)—which indicates the use of knives more than large enough to go through a spine lengthwise.

At this point, the leg can be easily separated from each half-carcass with a cut just anterior to the pelvis, indicated by the black line just anterior to the base of the tail of the pig carcass in *Fig. 5*. The separated leg contains the caudal vertebrae (the tail), the hipbone, the femur, the patella, and the tibia (*Fig. 7*). Everything that was needed for the rituals at the altar, namely the leg, the tail, and the *splanchna*, had now been removed from the carcass. The remainder of the carcass could now be processed as meat for consumption, while the leg and tail unit could be processed for the rituals at the altar.

Second phase of the butchery process

The next stage is to remove the tail and the thighbone from this leg. The first step is to remove the hipbone, as this will both separate the tail from the leg as well as make it easier to remove the femur.

Fig. 8 is of a lamb leg from the side of the animal that did not have the tail. The remaining halved caudal vertebrae are at the top of the image. To remove the hipbone, one first slides

[12] Zooarchaeological evidence supports the idea that splitting the carcass lengthwise down the spine was normative practice in ancient Greece (Michael MacKinnon, pers. comm.; Flint Dibble, pers. comm.). See also the contribution by Dibble in this volume, *Chapter 3*.

[13] Apulian red-figure bell-krater by the Tarpoley Painter, *c.* 360–340 BC, Madrid, Museo Arqueológico Nacional 1999/127/1. For vase images of butchers using large knives similar in size and shape to the knives used by butchers in Greece today to cut through a spine lengthwise, see e.g. Erlangen, Friedrich-Alexander-Universität 486, *c.* 500–475 BC, *BAPD* 202524; van Straten 1995, V222, fig. 155. Munich, Antikensammlungen 2347, *BAPD* 208254; van Straten 1995, V239, fig. 156.

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Fig. 6. Apulian red-figure bell-krater by the Tarpoley Painter, c. 360–340 BC, Madrid, Museo Arqueológico Nacional. N.I. 1999/127/1. Photograph: © Museo Arqueológico Nacional.

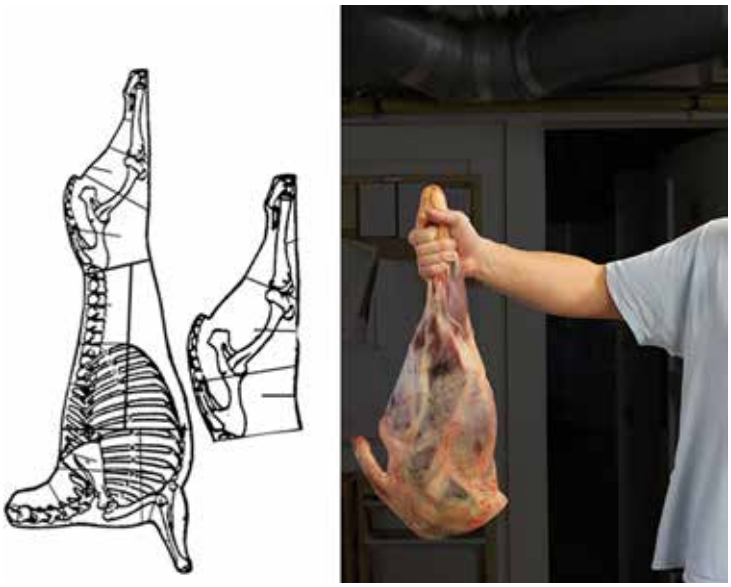

Fig. 7. Leg of lamb including tail. Photograph: Morgan Condell Morton.

the knife along the distal edge of the hipbone, which easily detaches the adjacent muscle from the entire length of the hipbone, a fast and easy procedure. This separates the hipbone from the leg, except for the hip socket in the center (*Fig. 9*). To separate the hip socket can be the slowest part of the entire process—one has to find where the ball enters the socket and it can be both difficult to see and slippery. One has two options to separate the femur from the hip socket. One can slip the knife into the socket and pop out the head of the femur, which then separates the hip bone from the leg (*Figs. 10* and *11*). The other option would be to just whack the joint with a large knife or cleaver. This would take off the top of the head of the femur with the same end result—the removal of the hipbone (*Fig. 12*). One sees evidence of both methods in the zooarchaeological record.[14]

Figs. 8–12 show a leg from the side of the carcass without the tail. Separating the hipbone from the femur from the side of the carcass that has the tail employs the same procedure but removes a combined hip and tail unit (*Fig. 13*). The combined hip and tail unit shown is from a comparatively older animal, which results in each of the bones appearing larger. The arrow indicates where on this hip and tail unit the cleaver first struck the spine at the base of the tail to begin cutting lengthwise down the spine. One has two options to separate the tail from the hipbone (much as with separating the femur from the hip socket). One can slide the knife through the thin seam of cartilage between the tail and the hip. This step involves skill on the butcher's part as the seam is thin and gets smaller as the animal ages.[15] The other method involves one stroke from a large knife, which can be quickly done even for an older sacrificial victim. The tail is now ready for its ritual use at the altar. The act of removing the tail from the larger leg unit was a fast and easy process, never needing a tool more specialized than the knife that was used earlier to cut the carcass in half.

Third phase of the butchery process

Now that the tail has been removed, the next step is to remove the femur from the leg.[16] Again, there is no need for a special tool, as this could be done with any sharp knife, from a paring knife to a cleaver. One first removes the layer of fat from the outside of the thigh, exposing the seam between the muscles of the thigh. Sliding the knife down the seam to expose the fe-

[14] See Flint Dibble's discussion of this phenomenon in this volume, *Chapter 3*. I thank Flint Dibble and Michael MacKinnon for discussions on this topic.

[15] I thank Justin Johnston, Production Manager of the Gordon W. Davis Meat Science Laboratory at Texas Tech University for showing me this seam of cartilage and demonstrating to me this method of separating the tail from the hip.

[16] For full discussion of this procedure with photographs, see Morton 2015.

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Fig. 8. Leg of lamb. Photograph: Morgan Condell Morton.

mur, one then continues cutting out the thighbone by repeatedly sliding the knife along the bone, freeing it from the surrounding muscle, before slicing easily through the knee, and extracting the femur. Only by this method of carefully cutting along the natural divisions to remove the thighbone will the remainder of the leg form the distinctive shape seen on vases.[17]

Zooarchaelogical evidence indicates that patellas were often burned with femurs and tails, indicating that ancient butchers cut over the patella, keeping it attached to the femur.[18] In practice, one can cut over or beneath the patella with no change to the butchery technique and no change to the shape of the remainder of the leg.

Out of the leg, we now have the thighbone, the tail, and a significant piece of fat from the top of the thigh. All of the required elements were thus ready for burning on the altar, while the rest of the leg could now be processed for consumption or given as a special share to a priest or other honored guest.[19] The process from slaughter to removal of thighbone and tail was quick, and speed would have been important for logistical reasons, especially dealing with large sacrifices such as a hecatomb, but also to keep the rite moving forward quickly and engagingly for the audience of spectators.

Burning the wrapped thighbone

For my experiments, I built a woodpile on the altar imitating the ones pictured on Greek vases. When the fire was around 600° C, but was putting off no impressive flames, I placed the fat-wrapped thighbone on top.[20] Within seconds, small flames began to form around the thighbone, while the fat around the bone started to melt and drip and put off smoke, as the temperature of the fat climbed to 100° C. After roughly two minutes, the flame greatly increased as the temperature of the fat reached 100° C and caught fire. By six minutes from the initial placement, the flames were high above the altar and obscured the thighbone (*Fig. 14*). This striking burst of flame consistently lasted six–seven minutes. Based on my experiments, a thighbone wrapped with at least 200 g of fat will always produce this burst of flame.

The fact that the wrapped thighbone produces this distinctive surge of flame over the altar every time urges us to view certain depictions of flames surging up over an altar during sacrificial rites depicted on vases as realistic portrayals (*Figs. 1–3*).[21] The experience of viewing this rite appears to have focused on the sustained burst of flame emanating from the wrapped thighbone. In contrast, unwrapped bones, bones with an insufficient wrapping of fat, or fleshed thighbones even when wrapped in 300 g of fat, caused no burst of flame or any other kind of dramatic change to the pyre. Additionally, the fleshed bone also takes much longer to be consumed by the fire—more than two hours as opposed to roughly 13 minutes.

Every fat wrapped thighbone I burned put off the sustained burst of flame. However, there is a scene of failed sacrifice in Sophocles' *Antigone* that reveals there was anxiety in antiquity that such a seemingly surefire rite could still fail. In this scene (Soph. *Ant.* 1005–1011), Tiresias says:

> At once I was alarmed, and attempted
> burnt sacrifice at the altar where I kindled fire; but the fire
> god raised no flame from my offerings. Over the ashes a
> dank slime oozed from the thighbones, smoked and sputtered;
> the gall was sprayed high into the air and the thighs,
> streaming with liquid, lay bare of the fat that had concealed them.
> (Transl. Lloyd-Jones 1998)

[17] See e.g. Munich, Antikensammlungen 2674, *c.* 500–475 BC, *BAPD* 205009; van Straten 1995, V231, fig. 161. London, British Museum E 62, *c.* 500–475 BC, *BAPD* 204877; van Straten 1995, V228, fig. 162. Durand 1984, 32; Morton 2015, 70.

[18] Cf. e.g. Starkovitch 2014; Reese 1989.

[19] Tsoukala 2009.

[20] Both the fat just removed from the top of the thigh and the omentum have been proposed as the fat used to wrap the femur: both of which were already removed from the animal, look the same when wrapped around the bone, and burn the same in the fire. See Forstenpointner 2003; Forstenpointner *et al*. 2013; Morton 2015.

[21] See additionally, Athens, National Museum 595, *c.* 500–475 BC, *BAPD* 9654; van Straten 1995, V158, fig. 153. London, British Museum B 362, *c.* 540–520 BC, *BAPD* 30320; van Straten 1995, V160, fig. 123.

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Fig. 9. The exposed hip joint. Photograph: Morgan Condell Morton.

Fig. 10. Popping the ball of the femur out of the socket with the tip of the knife. Photograph: Morgan Condell Morton.

Fig. 11. Separating the hip from leg. Photograph: Morgan Condell Morton.

Fig. 12. The hipbone fully extracted. Photograph: Morgan Condell Morton.

The audience would have realized that the ritual had been set up correctly, as Tiresias had lit the fire, wrapped the thighbones in fat, and placed them on the altar. However, in contrast to expectation, instead of flames rising up from the thighbones, liquid dripped down. More than just a literary device of using opposites for dramatic effect, this passage describes just what threatens to happen in my experiments during the first two minutes after the wrapped thighbone is first placed on the altar, as the fat starts to drip and put off smoke before it then creates the burst of flame. This brief threat of failure adds incredible tension to a ritual that could be expected to work every time, and this tension directly leads to relief and joy for the participants.

Even though in my experiments a properly wrapped thighbone always caused the burst of flame, nevertheless people who watched my experiments often spoke to me afterward about the great tension they felt when the wrapped thighbone was placed on the altar—this would be the one time the rite would fail. They said that they would closely observe every de-

Fig. 13. The tail and hipbone with initial cut mark indicated by arrow. Photograph: Morgan Condell Morton.

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Fig. 14. Burst of flame above the altar obscuring the thighbone. Photograph: Morgan Condell Morton.

tail of the wrapped thighbone for indications of failure until it burst into flames, and were then surprised by their relief. Sophocles' depiction of Tiresias' failed sacrifice tapped into this anxiety built into in the ritual.

Burning the tail

We know from vase imagery that the tail was supposed to curl upward when it is burned on the altar. I burned 36 lamb tails and two oxtails in all seasons and weather conditions, and the tail always curls upward.[22] However, how it curls is worth exploring further.

When first placed on the burning altar, the tail lies straight and flat (*Fig. 15*). The tail then starts moving surprisingly fast, often within 30 seconds. Interestingly, though, the tail always begins moving by slightly contracting and then appearing to curl downward (*Fig. 16*). That this ritual begins with the tail seeming to do the opposite of what it is supposed to do, and expected to do, adds great tension to the event. But then roughly three minutes after having been placed on the altar, the tail starts curling up, the proper way (*Fig. 17*); moving dramatically and quickly, it completes the curl within the next three minutes (*Fig. 18*). The rapid curl, pointing upward in an auspicious way, will have provoked a feeling of release for the audience. Similar to the ritual burning of the thighbone, the initial threat of failure adds increased tension and relief to a ritual expected to work every time. Importantly, the burning tail provides no burst of flame. In *Figs. 15–18*, the flames are caused by the burning fat wrapped thighbone behind the tail. The tail itself caused no change to the flames.

As discussed above, the initial carving by the butcher, cutting the carcass in half, was at the base of the tail. My experiments indicate that it did not matter where the butcher made the cut, i.e. how much of the sacrum was kept attached to the tail, for the success of the rite. The tail had enough internal stability to curl with or without the sacrum.[23] This irrelevance of the sacrum to the success of the rite could help explain the variable presence of sacra and caudal vertebrae in sites where tails have been burned.

The thigh and tail together

The tail and thighbone were not only removed together from the carcass during the process of butchery, I believe that they were burned together on the altar at the same time. There are two direct artistic representations of this. In Aristophanes' *Peace*, in the sacrificial scene at the altar mentioned above, the thigh and the tail are presented as burning on the altar at the same time: Trygaios' slave tells him to "place the thighs on the fire on the altar" (Ar. *Pax* 1039) and then, a mere 14 lines of rapid dialogue later, Trygaios tells the slave to be careful of the tail on the altar while roasting the *splanchna* and then says "the tail is doing nicely" (Ar. *Pax* 1054–1055). This strongly implies that the tail and thigh were on the altar at the same time.[24] One vase image also depicts the tail and wrapped thighbone on the altar at the same time (*Fig. 1*); the tail is in the foreground and the wrapped thighbone is understood to be the hourglass shape depicted behind it.

The problem is that both these representations could be thought to be narrative compression of events for artistic purposes. Vases are not photographs and comedic sources can be difficult to interpret. Looking again at *Fig. 1*, the fire is por-

[22] Previous studies of curling tails: Jameson 1966; 1986, 60–61; Ekroth 2009, 149; 2013a, 20. Kadletz (1981) speculated that the object depicted curling on the altar was instead a tongue. I burned an ox-tongue and it did not curl, but merely turned into a black lump that took multiple hours' worth of fuel to eventually consume. For the tongues of sacrificial animals, see further Georgoudi this volume, *Chapter 8*.

[23] So much so, that once I placed the tail upside down on the altar and it flipped itself over to be able to make the proper auspicious curl.

[24] I burned ten sets of *splanchna* over the altar in my experiments. The *splanchna* roast to an edible state in eight–ten minutes in the burst of flame from the wrapped thighbone. This supports the idea that the *splanchna* could have been roasted at the same time as the thigh and tail were on the altar, as portrayed in this passage, and on vase images of *splanchna* being roasted over curling tails on the altar. See the discussion of images of *splanchna* roasting over altars in van Straten 1995, 133–135. For the cooking of the *splanchna*, see also Pirenne-Delforge in this volume, *Chapter 10*.

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Fig. 15. Initial placement of the tail on the altar. Photograph: Morgan Condell Morton.

Fig. 16. The tail begins curling the wrong direction. Photograph: Morgan Condell Morton.

Fig. 17. The tail curing the auspicious direction. Photograph: Morgan Condell Morton.

Fig. 18. The tail completes its curl. Photograph: Morgan Condell Morton.

trayed leaping above the tail and wrapped thighbone as it does over the thighbones in my experiments. In other vase images (*Figs. 2* and *3*), flames are shown leaping over curling tails but with no thighbone depicted.[25] A burning tail alone, however, makes no such burst of flame. I propose that these images of leaping flames over curling tails were meant to indicate the implied presence of the wrapped thighbone lying next to the tail on the altar and generating these flames.

This would have been possible due to the same time intervals involved in the ritual processes for both the thigh and the tail (See *Table 1*). When I put the wrapped thighbone and the tail on the fire on the altar at the same time, for the first couple of minutes each of them would generate tension in the audience by giving the impression that the ritual might not work: the tail begins curling the wrong way and the fat wrapped around the thighbone starts sputtering, melting, and putting off smoke. But then over the next three or so minutes, the tail would make its auspicious curl and the flames would start to surge above the altar. When the tail was placed on the altar on the side of the thighbone facing the spectators, the burst of flame from the thighbone would not obscure the tail. For the following few minutes the tail would be curled on the altar with the flames rising above as pictured on these vases. These scenes would then be a veristic reflection of the sacrificial rite.

Issues of woodpile structural stability add another reason one would burn the thighbone and tail at the same time. In Aristophanes' *Peace*, Trygaios arranges the woodpile on the altar and asks the chorus "Wouldn't you say that I'm arranging the firewood in a mantic way?" (Ar. *Pax* 1026), likely implying some sort of physical gag, such as piling up the wood in a particular way to make fun of *manteis* (seers). This in turn

[25] See additionally Athens, National Museum 595, *c.* 500–475 BC, *BAPD* 9654; van Straten 1995, V158, fig. 153. London, British Museum B 362, *c.* 540–520 BC, *BAPD* 30320; van Straten 1995, V160, fig. 123.

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	First 2–3 min	At 2–3 min	At 6 min	Next 6–7 min	At ~13 min
Wrapped thigh-bone	Fat sputters and melts	Flames start to surge	Flames create distinctive surge	Flames sustain their surge above altar	Flames die down
Tail	Begins curling downward	Starts curling upward	Completes curl upward	Stays curled	Is thoroughly charred

Table 1. Timing of events on the altar.

strongly suggests that there would have been an expected size and shape for the woodpile on the altar. Indeed, woodpiles on altars as depicted on vases display a consistent size and shape (*Figs. 1* and *2*).[26]

For my experiments, I built woodpiles that reflected the images on the vases. Practically, this shape works, in that a wood pyre built in this manner always burns at a sufficient temperature to ignite the wrapped tailbone and curl the tail. However, there is a limited time of structural stability for a burning woodpile of this size and shape. Burning the leg and then the tail in succession, in either order, can take long enough that the woodpile starts to collapse, which can send what is on the woodpile tumbling off; this would surely have seemed inauspicious and to be avoided. These factors strongly suggest that the thigh and tail were burned together on the altar. More than the tension each generated individually, their combined behaviors in the fire would have made for a dramatic confluence of events.

Interpreting the signs

The ritual burning of the thigh and the tail was designed to succeed in a reliable and predictable manner and to do so with clear visual confirmation of that success: the burning thigh-bone and the tail each gave a distinct and unambiguous sign. Importantly, these signs are easily recognizable to a non-specialist and do not rely on any specific interpretation. In fact, there is nothing to interpret; there is a clear thing that happens: the tail curls upward and the burst of flame appears.[27] Either the ritual worked or it failed. This is different than many other aspects of Greek religion where interpretation was needed and the communication with the divine was ambiguous. For instance, the study of the sacrificial entrails needs a specialist's interpretation. There are also the easily misunderstood oracles from Delphi, the priests who interpret sounds at Dodona, and signs from birds and dreams.[28]

What the ritual with the thigh and tail tells the worshipper is whether the offering has been received by the gods—the burning of the thigh and tail is the first stage in communication between the divine and the sacrificer. While the prayer is made before killing the victim, the successful completion of the rites at the altar is the first indication that the gods are even listening. Once this first step in the communication between men and gods is achieved, then the next step—the request or prayer—has the possibility of being heard and then accepted or denied.[29] This relationship between the sacrificial rite and the prayer itself is well illustrated in an episode in Apollodoros' *Bibliotheca*.[30] In this passage (Apollod. *Bibl.* 1.7.2), Deucalion, after surviving the flood, sacrifices to Zeus, who, in response to receiving the sacrifice, sends Hermes down to see what Deucalion wants. Deucalion's sacrifice thus acted as an opening of the communication between man and the gods, which, when accepted, led to the request stage of the interaction. However, if this sacrificial rite failed, then the line of communication was closed. The passage from *Antigone* discussed above illustrates the situation in which the first step of communication failed and there was then no possibility of any prayer being heard.

The audience of spectators at a sacrificial rite would have together witnessed the potential failure and shared the clear success of the successful rite.[31] Additionally, each member of the audience would have been able to interpret the rite as successful—no intermediary was needed to explain it to them. The unambiguousness of the interpretation of the rite effectively made all the witnesses into participants as well.

[26] van Straten 1995, 167.

[27] Pindar mentions μάντιες ἄνδρες ἐμπύροις τεκμαιρόμενοι, "mantic men divining through fire-watching" at Olympia (Pind. *Ol.* 8.2); however, it is unclear from the poem what these men did and their peculiarity to Olympia appears to be stressed. Hesychius' definition of πυρκόοι (s.v. πυρκόος) is likely a reference to this Pindaric passage, although it mentions Delphi. Linear B tablets PY Ep 705 and Eb 884 (securely restored) likewise offers an opaque reference to fire watching in the personal name *pu-ko-wo* (*/Purkowos/*), who is a "slave of the god" (*te-o-jo , do-e-ro*); see Aura-Jorro 1999, s.v. *pu-ko-wo.* I thank Kyle Mahoney for pointing these examples out to me, and for extensive discussion on the topic.

[28] On divination in general, see Johnston 2008; 2015. For Delphi, see Fontenrose 1978. For Dodona, see Parke 1967 and Eidinow 2007.

[29] On different methods of communication between men and gods during sacrifice, as well as the gods' potential denial of prayer requests, see Naiden 2013, 39–40, 109–122 and 131–182. I thank Fred Naiden for discussion on this topic.

[30] I thank Vinciane Pirenne-Delforge for showing me this passage.

[31] For the performative nature of Greek ritual, see Pilz 2011.

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Conclusions

From separation from the carcass through destruction by fire and communication with the divine, the thigh and tail are linked, both by physical proximity and by how they transmit communication with the gods: the leg and tail were removed from the whole carcass together; this leg and tail unit then supplied all the components for the rituals at the altar, and these components were quickly and easily extracted; the tail and leg were burned on the altar at the same time. Each rite contained a threat of failure but, when it was correctly performed, always worked: the tail always curled and a wrapped thighbone always produced the desired surge of flame. The rite was easy to understand and interpret for everyone who could see it, and as a result the thigh and tail enabled everyone at a sacrifice direct communication with the gods.

JAKE MORTON
Classics Department
Carleton College
jmorton@carleton.edu

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FLINT DIBBLE

3. Beyond burned thighbones

The anatomy of ancient Greek sacrifice

Abstract

This paper examines the relationship of anatomical patterns of burned and butchered bones to ancient sacrificial ritual. The anatomical patterns in sanctuary contexts are compared to those found in settlement contexts in the Greek world. The pattern of burned upper hindquarters (thighs and tails) is found in assemblages from many sanctuary sites. However, a pattern of burned lower limbs (and sometimes heads) is found in several private contexts dating from the Late Bronze Age through the Hellenistic period. The burning of these less meaty elements potentially relates to a passage in the *Homeric Hymn to Hermes*. Large-scale sacrificial feasting assemblages at several sites show the use of large cleavers to efficiently butcher animals. At Azoria, this pattern contrasts with residential butchery conducted with smaller knives. The tight anatomical patterning of cleaver-chops found in communal dining middens are indicative of professionally trained butchers. At the Athenian Agora, the relative absence of cutmarks on unburned femora, indicates that commercial butchers treated these parts specially. These contexts reveal butchery as an important spectacle within the setting of sacrificial feasting.*

Keywords: zooarchaeology, Azoria, Histria, Athenian Agora, bone assemblage, sacrificial feasting, settlement, residential butchery, burning, lower limb, head

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Ancient animal sacrifice was messy with blood, guts, bones, and smoke. Prometheus knew this as he carefully highlighted one portion as edible, yet unappealing (the meat wrapped in the hide and covered in the stomach), and another as inedible, yet appealing (the bones wrapped in fat).[1] According to Hesiod, this trick lies at the heart of ancient Greek sacrificial ritual, where bones are burned as offerings for the gods or other supernatural forces. While the gods enjoy the fragrant bone-smoke rising to the heavens, the tasty meat is left for human tongues. Like Prometheus, ancient artists also avoided depicting the messiness of sacrificial ritual. Even though iconographic depictions of the proud animal being led to slaughter are common, and there even exist a few depictions of bone burning, the act of slaughter is rarely shown.[2] Finally, scholars of ancient sacrifice also recognize the complexity that is our evidence. Our dataset is incomplete and fragmentary, and there always seems to be an exception—or three—to any pattern that we try to discern.

This paper adds to the complexities of our data on ancient sacrifice by contextualizing the sacrificial treatment of animal limbs from sanctuaries with the evidence from ancient Greek settlements. While the zooarchaeological remains from Greek sanctuaries have been extensively examined for evidence of

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[1] Hes. *Theog.* 534–557.
[2] Durand 1986, 10–11.

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ritual activity, the evidence from settlements rarely enters the scholarly discourse on animal sacrifice. The zooarchaeological patterns from settlements present a very different picture of sacrificial ritual from that presented at sanctuaries. Despite the scholarly consensus that most domesticated animals were sacrificed,[3] many animal remains from Greek settlements relate only ambiguously to such ritual activity.

Therefore, in the vein of an approach from snout to tail, this paper explores anatomical variability in the evidence for ancient sacrifice in both ancient Greek sanctuaries and settlements. The zooarchaeological remains from these deposits show that combining the evidence for anatomy with that of burning and butchery yields new insights into ancient Greek sacrificial ritual. While sanctuaries are often filled with a normative sacrificial assemblage—burned thigh and/or tail elements—, in settlements, most zooarchaeological material is unburned, including thighbones.[4] The burned elements that are encountered in settlements frequently derive from elsewhere on the skeleton: mostly lower limbs and, sometimes, head elements.[5] Similarly, butchery methods in deposits associated with sacrificial feasting frequently differ from butchery methods identified from residential, and sometimes commercial, contexts. The sacrifice of a large group of animals necessitated the use of more efficient methods and tools, specifically cleavers. The fact that some cultic officials (*mageiroi, hieropoioi,* etc.) carried out the acts of slaughter and butchery perhaps points to the fact that butchery was, alongside bone burning, part of the spectacle of ancient sacrifice.[6]

Identifying sacrificial ritual from the bones

Several scholars have subscribed to the idea that "all consumable meat comes from ritually slaughtered animals ... "[7] However, Gunnel Ekroth and Robert Parker have noted that meat from wild animals and those that have died of natural causes would not have derived from such ritual slaughter.[8] Moreover, Jeremy McInerney has discussed textual citations mentioning the commerce of both sacrificial and non-sacrificial meat derived from domesticated animals.[9] Without the presence of some other, more clear, form of evidence for ancient sacrifice—found in a sealed deposit next to an altar, perhaps?—the identification of most zooarchaeological assemblages as relating to sacrificial ritual is ambiguous. While it is certainly possible that bone fragments from a pit within a settlement derive from sacrificial activity, it is not easy to be sure, in the absence of unambiguous non-bone evidence from the same context.

An approach grounded in contextual taphonomy, examining a range of zooarchaeological variables across both sanctuary and settlement contexts is the first step towards better classifying and understanding sacrificial rituals.[10] Most zooarchaeological studies from historical Greece (in the Archaic through Hellenistic period) have focused on sanctuary deposits,[11] while

[3] Rightly critiqued by Ekroth 2007, who writes, 251: "The religious as well as socio-political significance of animal sacrifice and the division, distribution and consumption of meat have led modern scholars to claim that *all* the meat the ancient Greeks ate was linked to the sacrifice of domestic animals in some sense, and that meat normally could not be eaten except on the occasion of a sacrifice and according to its rules. Sacrifice has been seen as a prerequisite for meat eating, and consequently the reason for performing animal sacrifice in antiquity has been explained as a way of legitimating the killing of animals for human purposes."

[4] Most ancient Greek sanctuary deposits that have been published focus on assemblages of burned bone (with a few notable exceptions such as Gebhard & Reese 2005 and Ruscillo 1993). So, it is plausible that there are larger assemblages of unburned bones from sanctuaries that have yet to be published (or were perhaps not collected or saved from early excavations). The overwhelming majority of unburned bones in most ancient Greek settlements can be seen in Dibble 2017; 2021.

[5] This pattern is presented in more detail below.

[6] This argument is presented in more detail below.

[7] Detienne 1989, 3.

[8] Ekroth 2007; Parker 2010.

[9] McInerney 2010, 179, quoting Arist. *Oec.* 2.1349b: "The citizens were angry when they realized they had been tricked and began to kill and sell off their beasts. Dionysios responded with a decree that only as many animals could be slain as were needed each day, whereupon the owners retorted by designating their animals as sacrificial victims." This quote implies that owners could select some domestic animals to be killed in the context of sacrifice and others not. Cf. also McInerney 2010, 184, quoting [Arist.] *Mir.* 123, 842b1: "It is said among the people of Elis there is a type of kite that snatches meat from those carrying it across the market, but that it will not touch sacrificial meat." This quote implies that both sacrificial and non-sacrificial meat was available in the market.

[10] For contextual taphonomy in zooarchaeology, see Meier & Yeshurun 2020.

[11] While this is not a complete bibliography, it gives a sense of the focus on sanctuary deposits: Amathous, Temple of Aphrodite: Hermary & Columeau 2008. Athens, the Altar of Aphrodite Ourania: Reese 1989. Azoria, Protoarchaic Building: Dibble 2017. Corinth, Demeter and Kore sanctuary: Bookidis *et al*. 1999. Kyrene, Sanctuary of Demeter and Persephone: Crabtree & Monge 1990. Delos, Serapeion: Brun & Leguilloux 2013. Ephesos, Temple of Artemis: Bammer 1998; Forstenpointner 2001; 2003. Eretria, Temple of Apollo: Chenal-Velarde 2001; Chenal-Velarde & Studer 2003. Isthmia, Temple of Poseidon: Gebhard & Reese 2005. Kalapodi, Temple of Artemis/Apollo: Stanzel 1991. Karystos: Groot 2014. Knossos, Sanctuary of Demeter: Jarman 1973. Kommos: Reese *et al*. 2000. Kourion, Temple of Apollo: Davis 1996. Kythnos: Theodoropoulou 2013; Trantalidou & Theodoropoulou 2017. Lykaion, the ash altar: Starkovich 2014. Messene, Temple of Demeter and heroon: Nobis 1997. Miletos, Temple of Aphrodite: Peters & von den Driesch 1992. Mytilene: Ruscillo 1993. Nemea, Sanctuary of Opheltes: MacKinnon 2010; 2013. Olympia, Artemision: Benecke 2006. Samos, Heraion:

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there are few from settlement contexts.[12] This contextual focus presents a biased picture of ancient animals and clouds our understanding of ancient sacrifice. After all, are the zooarchaeological patterns initially studied at sanctuaries consistent with those of settlements? We need to use our sets of evidence from each of these locales to contextualize the other and provide further nuance to our understanding of ancient sacrifice and meat eating.

The standard methods used for the zooarchaeological identification of sacrificial ritual rely on two components: 1) archaeological context and 2) anatomically patterned burning. With regards to the first point, scholars focusing on sanctuary assemblages have it a little easy. Many of the remains from a sanctuary derive to some degree from the activity of animal sacrifice or ritual dining. Different archaeological contexts within the sanctuary, therefore, reveal different ritual activities over time or space. For example, at the Sanctuary of Poseidon at Isthmia, Elizabeth Gebhard and David Reese have identified changes in victim choice that correlate with the prosperity of the sanctuary: more sheep/goat in periods of disturbances and more cattle in periods of expansion.[13] Furthermore, different assemblages distributed spatially across a sanctuary can reveal different types of activity, or stages of deposition.

In settlements, zooarchaeologists are left with few contextual clues that might relate an assemblage of bones to sacrificial ritual. Do animal bones deriving from the floor of a house or a dense dump of dining ceramics and bones from a civic dining building necessarily reveal evidence for animal sacrifice?

The answer is to turn to the ritual treatment of the bones themselves, to discern patterns inherent in archaeological assemblages that can help us identify ancient sacrifice. The most obvious pattern would be that mentioned by Hesiod: bones were burned in an offering to the gods.[14] Burning is an important component of the ritual that can be unambiguously identified in a zooarchaeological assemblage.

However, we cannot simply identify every single burned bone as the product of animal sacrifice. Bones, after all, might have been burned for a wide variety of reasons. Bones could be used as fuel for a fire.[15] They might have been disposed of in a fire or burned accidentally.[16] Grilling bone-in cuts of meat might have burned certain portions of the bones.[17] We are lucky that ancient texts often specified the anatomical portions to be burned. Typically, these were the thighbones and tails of the animal.[18] Given the anatomically patterned nature of sacrificial ritual, it is possible that anatomical patterns within assemblages of unburned bones might also help us identify ancient sacrificial activity in settlements. Similarly, provided the right pattern and depositional context, anatomically patterned butchery methods can potentially relate to sacrificial ritual and feasting.

While the color, age, sex, or other features of a sacrificial victim might be specified in texts, these are not identifiable from most bone fragments.[19] Nor must a clear pattern related to the ages and sexes of the animals found in a deposit necessarily relate to ritual selection. Ages and sexes of slaughtered animals can equally relate to economic choices pertaining to animal husbandry strategies.[20] One might expect that if ages and sexes correlated to a sacrificial pattern then it would be one unexplainable by economic strategy. On the other hand, it is possible that ritual and economic strategies mutually reinforced each other. For example, pigs are animals with large litters and without secondary products (e.g. milk); there are therefore few benefits to keeping them alive long. Thus, the frequent sacrifice of piglets (at Demeter sanctuaries) matches potential economic strategies focusing on quantity and quality of pork.[21] Without additional context, therefore, it is dif-

Boessneck & von den Driesch 1981. Stymphalos, temple: Ruscillo 2014. Tamassos, Temple of Aphrodite: Nobis 1976–1977. Tegea, Temple of Athena Alea: Vila 2014. Tenos, Temple of Poseidon: Leguilloux 1999. Thasos, Herakleion: des Courtils *et al*. 1996. Zone, Thrace, Temple of Apollo: Veropoulidou & Nikolaidou 2018.

[12] Arcadia: Forstenpointner & Hofer 2001. Athens, Agora: MacKinnon 2014; Dibble 2017. Azoria: Dibble 2017; 2021. Eleutherna: Vila 1994. Eretria: Chenal-Velarde 2006. Isthmia, Rachi settlement: Reese 1993. Kassope: Boessneck 1986. Knossos: Dibble 2012. Magoula Plataniotiki: Filioglou *et al.* 2021. Miletos: Peters & von den Driesch 1992. New Halos: Prummel 2003; Filioglou *et al.* 2021.

[13] Gebhard & Reese 2005, 147: "It is interesting to note the high proportion of the less expensive sheep or goat in 1.G immediately following destruction of the temple in ca. 450 B.C. ... In contrast, the pre-fire deposit 1.E, which is of equal weight and ceramic distribution, contains mainly cattle. Cattle also predominated during periods of new building in the later 5th century B.C. (1.I, 1.J) and again at the end of the 4th century B.C. (1.L)."

[14] Hes. *Theog.* 557: "the peoples on earth have burned white bones for the immortals on aromatic altars" (transl. West 1988).

[15] Costamagno *et al*. 2009; Théry-Parisot & Costamagno 2005.

[16] The heat of a fire can be conducted through up to 10 cm of sediment, meaning that even buried bones can be altered by a fire on a surface above. See Aldeias *et al*. 2016 for controlled experiments demonstrating how heat can alter buried archaeological materials.

[17] Since the meat shields the bone from the heat, grilled assemblages are identified from burned bone ends or a transition from unburned to burned on a specimen (Gifford-Gonzalez 1989, 193–194).

[18] For an extensive exploration of the textual, iconographic, and zooarchaeological evidence for this pattern see Ekroth 2009. See also Morton in this volume, *Chapter 2*.

[19] While ageing and sexing certain specimens from certain anatomical elements is possible, it is not possible for the majority of recovered specimens, especially if they are limited to a select few anatomical elements (thighs and tails).

[20] Payne 1973, 281–283.

[21] Pig remains are typically the most common found at sanctuaries of Demeter and Persephone: Jarman 1973; Crabtree & Monge 1990.

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ficult to disentangle ritual from economic considerations in zooarchaeological age and sex data (or even knowing what these considerations were to ancient peoples).

Thighbone *thysiai* and curling tails

The chapters in this volume highlight the variable ways in which different body parts could be treated in the course of sacrificial ritual. Heads and horns could be decorative.[22] Various cuts of meat, usually—but not only—from the limb, could be either burned on an altar or left as an unburned offering on table. Yet, as the description of sacrificial ritual in the Homeric epics and other texts show, there is a type of sacrifice that we can see as "typical". Scenes of sacrificial ritual from Homeric poetry to Pausanias consistently describe the selection of the fat-wrapped thighbones (*meria*) as the offering to be burned (*thysia*) to the gods.[23] Less commonly there are references to burning an entire animal (holocaust) or other parts of an animal that might include bones and meat (the neologism moirocaust has been used to describe these cuts).[24] The typical sacrifice of burned thighbones is complemented with evidence for the burning of the tail (*osphys*) because of the divinatory manner in which it curls.[25] Certainly, Hesiod's description of Prometheus and Zeus shows that the burning of bones constituted one of the most important ritual components of the sacrificial act.

Iconography depicting ancient sacrifice confirms the patterns presented in texts. Curling tails are a prominent component of these scenes, an action that Aristophanes portrays as a good omen.[26] Experiments have shown that the tail typically curls as it contracts from losing moisture.[27] Vase-paintings of sacrificial scenes sometimes include a packet placed on the flaming altar. These have been convincingly interpreted to be the fat-wrapped thighbones.[28] Other vase-paintings depict the hind limb as an honorary share of meat, thought to have been awarded to the official conducting a ceremony.[29] The depiction of these cuts of meat as "floppy" indicates that the thighs had already been deboned, with the bones potentially wrapped in fat and burned as a *thysia* offering.[30]

Since Reese's publication of a large group of burned sheep and goat hindquarters found in the altar of Aphrodite Ourania in Classical Athens,[31] several zooarchaeological analyses of animal bones from ancient Greek sanctuaries have confirmed that *thysiai* of the thighbones are the most common form of ancient sacrifice, which are frequently (but not always) accompanied by tails.[32] These burned bones can be broadly classified as upper hindquarter elements, including the thighbone (femur) and tailbones (sacrum and caudal vertebrae) and sometimes anatomically adjacent elements such as the hip (pelvis), kneecap (patella), and shinbone (tibia). Occasionally, more precise patterns can be found, as in the shrine of Opheltes at Nemea where left-sided hindquarters were burned.[33] There are a handful of exceptions to the pattern, including evidence for holocaust and moirocaust sacrifice and variably patterned burned assemblages in Bronze Age deposits.[34] But overall, burned upper hindquarters, mostly thighbones, dominate published zooarchaeological assemblages from sanctuaries or altars firmly identified as evidence for sacrificial ritual.[35]

Similar to the de-boned limbs found on vases, it is sometimes possible to identify evidence for sacrificial ritual in deposits of unburned bones where thighbones are missing. Gebhard and Reese observed this pattern at the Sanctuary of Poseidon at Isthmia.[36] While burned femora were exceptionally common among burned material located in association with the Long Altar to Poseidon, femora were exceptionally uncommon among mostly unburned material from the nearby Large Circular Pit associated with a dining area.[37] The excavators surmised that the latter deposit represented feasting debris accumulated from *thysia* sacrifices burned on the altar.[38] A similar pattern has been published at the Temple of Apollo Daphnephoros at Eretria, where burned thighbones are found near the Geometric altar and unburned deposits from the subsequent period lack thighbones.[39] I have also identified a similar assemblage of dining debris from the Archaic Temple of Zeus at Histria (now in Romania) where the

[22] For this aspect, see the contribution by Zachari in this volume, *Chapter 7*.
[23] Hom. *Od.* 3.364–365; Ar. *Pax* 1039; Paus. 1.24.2, 2.10.1 and 2.11.7.
[24] Gebhard & Reese 2005, 137–139 document holocaust sacrifices to Palaimon at Isthmia. Ekroth 2008, 90–93 connects moirocausts to holocausts.
[25] Ekroth 2009, 149; see also Morton's paper in this volume, *Chapter 2*.
[26] Ar. *Pax* 1055.
[27] Jameson 1986, 60–61; Ekroth 2009, 143 and 148; Morton 2015, 66–75.
[28] Forstenpointner 2003, 210–211, fig. 21.6; Ekroth 2007, 133; 2013, 20. See also Morton's paper in this volume, *Chapter 2*.
[29] Tsoukala 2009.
[30] Durand 1984, 32; Ekroth 2013, 21.
[31] Reese 1989.
[32] E.g., Chenal-Velarde & Studer 2003; Gebhard & Reese 2005; Groot 2014; Reese *et al*. 2000.
[33] MacKinnon 2010, 254–256; 2013, 137–138.
[34] Isaakidou *et al*. 2002; Hamilakis & Konsolaki 2004; Cosmopoulos & Ruscillo 2014. See below for more detail on these Bronze Age examples of burned sacrifice.
[35] Forstenpointner 2003.
[36] Gebhard & Reese 2005, 140–147.
[37] While Gebhard & Reese 2005 note that the burned material associated with the Long Altar derived from much of the animal, excepting the forelegs, the data published in table 1 shows that hindquarters were typically more common. This matches the comment on p. 144 that, within the burned deposits, "particularly well represented is the upper hind limb, the femur."
[38] Gebhard & Reese 2005, 147.
[39] Chenal-Velarde & Studer 2003.

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absence of thighbones is likely due to the fact that they were burned on the altar and discarded elsewhere.[40]

The preponderance of burned thighbones at sanctuary sites in Greece contrasts sharply with the relative absence of thighbones (burned or unburned) at settlement sites. Thighbones are typically the least commonly represented long bone (humerus, radius, femur, and tibia) at Greek settlements.[41] When compared to other forelimb and hindlimb elements also present twice in a skeleton, it is clear that thighbones are largely underrepresented in settlement contexts. Is it fair to conclude that thighbones are underrepresented at settlements because they were burned at sanctuaries?

Unfortunately, I do not think so. As we shall see in the next section, it was not only the upper hindquarters that could be selected for burning. Furthermore, the femur is a notably fragile skeletal element, as those with hip or knee problems know. Both the proximal and distal ends of the femur are late-fusing, meaning they are growing lengthwise throughout the entirety of childhood, leaving rather thin-walled cortical bone.[42] Given that many animals found in sanctuary contexts were slaughtered prior to or around the age of adulthood, many femora are found unfused, making them more susceptible to taphonomic attrition.[43] Additionally, Lee Lyman has observed that anatomical elements with high utility (those with more meat and other nutrients), such as femora, are often among the least dense, further rendering them more susceptible to attrition.[44] On average, femora are less robust than other long bones within an animal skeleton.

If we examine archaeological sites well beyond the ancient Greek world, identifiable femora are typically underrepresented in comparison to other anatomical elements. For example, femora are the least common long bone represented at all the sites with anatomical counts presented in standard zooarchaeological textbooks.[45] This pattern is true for hunter-gatherer sites and agricultural settlements, ranging in time from Paleolithic assemblages to the modern day ethnoarchaeological collections. Clearly the individuals who created these thighbone-lacking-deposits were not participating in normative Greek animal sacrifice.

Other hindquarter elements also suffer from underrepresentation due to taphonomy, zooarchaeological methodology, and archaeological collection practices. Given the fact that vertebrae greatly outnumber limb bones within animal skeletons, and that many vertebra fragments are not closely identifiable, many specialists do not count them in the same way as limb bones. Sacra are notably porous and fragile and are rarely included in any published counts. Caudal vertebrae are extremely small and are frequently missed in the course of excavation, particularly if deposits are unsieved and not floated.[46]

The underrepresentation of thighs and tails due to burned sacrificial ritual makes logical sense within the small confines of a sanctuary where one deposit contains burned hindquarters and another (excavated with similar methods) contains unburned skeletal elements lacking in hindquarter elements. Within larger settlements where sacrificial practice and animal slaughter took place for a diverse number of reasons, this conclusion is far less secure. As the saying goes, the absence of evidence is not necessarily evidence of absence. We need evidence from the thighbones themselves if we are to make the argument that thighbones were treated in a special manner at a particular place and time.

Sacrificial variability

Another important problem with identifying typical *thysia* sacrifice strictly from an absence of thighbones, is that a zooarchaeological study of Greek settlements shows that there are other types of burned sacrificial ritual. It is true that most of the evidence for burned sacrifice directly associated with sanctuaries is a typical *thysia* sacrifice. However, the problem

[40] This assemblage is unpublished but discussed in more detail below.

[41] At settlements such as Early Iron Age Oropos (Trantalidou 2007, fig. 3), Archaic Azoria (Dibble 2017, table 5.5), the Archaic Athenian Agora (Dibble 2017, table 5.7; MacKinnon 2014, table 6 with discussion on pages 224–225), Hellenistic Eleutherna (Vila 1994, table 4), and Hellenistic Knossos (Dibble 2012, table 1.5), the femur is the most underrepresented limb bone for sheep/goat and/or cattle.

[42] Silver 1969, table A provides fusion ages for various anatomical elements. While these ages have been updated (Zeder 2006 for sheep and goat), both the proximal and distal femora are consistently among the latest ends to fuse in most animal species found in ancient Greece.

[43] Reese 1989, 65 reports that over 98% of the femora from the Altar of Aphrodite Ourania were unfused. Ekroth 2014, 335 notes that "the zooarchaeological evidence from sanctuaries shows that most victims sacrificed and eaten were young ...". See also the contribution by MacKinnon in this volume, *Chapter 5*.

[44] Lyman 1992, 19: "there appears to consistently be an inverse relationship between the volume density and utility of appendicular skeletal parts."

[45] For these anatomical compositions see Davis 1987, table 1.3 (sheep/goat from Iron Age Tel Qiri in Israel); Lyman 1994, tables 7.2 (caribou from Nunamiut sites in Alaska), 7.5 (goat from a modern Hottentot village), 7.9 (marmots from White Mountain sites in California), 7.11 (deer-sized mammals from site 45CH302 in Washington), 7.13 (mammals from Plio-Pleistocene FLK Zinjanthropus in Tanzania), 8.10 (bison from the Late Prehistoric, horticultural site at Philips Ranch in South Dakota); Lyman 2008, tables 6.5 (pronghorn antelope from site 39FA83 in South Dakota), 6.9 (bison from sites 32SL4 in South Dakota), 6.15 (saiga antelope from Mousterian Prolom II Cave, Ukraine); O'Connor 2000, tables 7.2 (cattle from Medieval York), 7.3 (cattle from Roman baths at the Caerleon fortress).

[46] Payne 1972 describes how smaller anatomical elements are frequently underrepresented due to excavation collection methods.

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with identifying a normative pattern—the commonality of "thighbone" sacrifice—is that other scholars know where to find it and replicate it: in deposits of burned bones excavated at sanctuaries. While this is good science, to confirm each other's conclusions, in a largely inductive field like archaeology, it can lead to the development of a normative paradigm and accidental exclusion of other evidence. The zooarchaeology of Archaic, Classical, and Hellenistic Greece is largely dominated by sanctuary contexts, at the expense of studies on deposits from settlements with less clearly defined spaces.

The growing evidence for burned sacrificial ritual in Late Bronze Age Greece shows a greater diversity in the anatomy of burned bones. Burned specimens from the ash altar at Mount Lykaion reveal prehistoric evidence of a more normative *thysia* ritual.[47] All levels of the ash altar, including the Late Bronze Age levels, include a preponderance of burned thighbones and tail vertebrae from sheep or goats.

However, non-altar contexts in the Late Bronze Age show different patterns in ritually burned bone. At the Palace of Nestor at Pylos several deposits of burned bone have been analyzed by Valasia Isaakidou and Paul Halstead.[48] These burned assemblages were made up of the thighbones of cattle and red deer alongside mandibles and humeri (the upper forelimb counterpart to the thighbone). The largest of these deposits was located in the Archives Room of the palace.[49] This deposit derived from at least 19 cattle and one red deer and could have fed over 3,000 people.[50] It is possible that the burning of femora suggests that this burned sacrificial ritual, the only example published from a palatial context, could have been conceptualized similarly to a *thysia* deposit of burned thighbones.

Burned deposits from Late Bronze Age settlement contexts show a very different pattern. A burned assemblage of bones found near a hearth in a house/sanctuary at Agios Konstantinos on Methana included primarily pig bones.[51] Yannis Hamilakis and Eleni Konsolaki conclude that "the burnt bones also indicate that non-meaty parts of the skeletons such as phalanges were selected for burning, whereas meaty parts of the skeleton were first consumed by humans and then thrown into the fire (either as burnt offerings or in order to deliberately destroy by fire human food remnants)."[52]

A similar assemblage of burned non-meaty parts of pigs (tarsals, metapodials, and phalanges) has been found in association with the platform of Megaron B at Eleusis.[53] Michael Cosmopoulos and Deborah Ruscillo have contrasted these assemblages of burned lower limbs of pigs with the larger assemblages of burned bones from the Palace of Nestor at Pylos. They argue that these smaller assemblages represent "a small group of people (perhaps a family or clan?) conducted the sacrifice ... these sacrifices took place in a private setting and included the ceremonial burning of pigs ..."[54]

The fact that so few Late Bronze Age deposits consist of burned thighs and tails has partially informed Helene Whittaker's challenge to their identification as burned sacrificial ritual.[55] Whittaker argues that the burned bones at Pylos, Agios Konstantinos, and Eleusis might simply represent refuse from animal processing, food preparation, or consumption that were accidentally burned, or disposed of, within a fire. The detailed zooarchaeological publications of the burned material from these three sites do not support Whittaker's argument, as these are all structured assemblages of carefully selected bones for burning.[56] The unburned bones from elsewhere at these sites do not match the anatomical pattern of those that were burned. There are no taphonomic indications that might suggest they were burned randomly as refuse. Furthermore, my analysis of bones from later settlements shows that the pattern of burned lower limb bones (sometimes accompanied by head elements) is a ritual pattern that persists at least into the Hellenistic period in the Greek world.

The earliest example that I have encountered of this sacrificial pattern is a deposit of burned lower limbs (42 identifiable, burned specimens) of sheep and cattle found near the hearth of Building A.2 at the LM IIIC settlement of Chalasmenos on Crete.[57] An articulating sheep ankle suggests this to be primary deposition.[58] Most of these burned specimens were completely carbonized, very few showed signs of calcining or intense fragmentation, and a few were only lightly carbonized.[59] The complete carbonization (of the entire surface of the bones) with minimal calcination suggests that they were burned at a temperature above that of cooking but only for a limited duration. It is possible to envision that this sacrificial fire was quenched early. Moreover, the fact that the articulating elements of the sheep ankle (a complete astragalus and a distal tibia fragment) were completely and evenly carbonized, shows that they had been carefully disarticulated prior to placing in the fire.[60] The unburned remains from the same room

[47] Starkovich 2014.
[48] Isaakidou *et al*. 2002.
[49] Stocker & Davis 2004.
[50] Halstead & Isaakidou 2004, 146–148.
[51] Hamilakis & Konsolaki 2004, 138–143.
[52] Hamilakis & Konsolaki 2004, 143.
[53] Cosmopoulos & Ruscillo 2014.
[54] Cosmopoulos & Ruscillo 2014, 270.
[55] Whittaker 2007.
[56] See Cosmopoulos & Ruscillo 2014 for a reply to Whittaker 2007.
[57] Dibble 2018, 89–92.
[58] Dibble 2018, pl. 20C.
[59] Dibble 2018, pls. 20B–D, 21A.
[60] If they had remained articulated, then the proximal half of the astragalus would have been shielded from the fire by the distal tibia and would have not been evenly carbonized across its surface. The same is true for the articular surface of the tibia, which would have been shielded by the articulating astragalus.

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were dominated by meaty elements, indicative of food preparation or consumption waste.[61]

At Nichoria in Messenia, I have examined a heavily burned assemblage found in a stone-lined pit dating to the Early Iron Age that is mostly comprised of lower limbs from sheep and cattle (29 identifiable, burned specimens).[62] The pit is not in clear association with any of the standing structures but contained a "good series of DA II pottery."[63] The zooarchaeological material contrasts with that from Chalasmenos in that it is more intensively burned, with many specimens calcined and heavily fragmented. While initially identified as a refuse pit, it seems more likely that this contains a burned sacrificial assemblage corresponding to the pattern of burned lower limbs found elsewhere. It is the only concentrated assemblage of burned bones excavated from Nichoria, representing approximately 30% of all identifiable burned bones from Early Iron Age contexts at the site.[64] The selection of lower limbs for burning, and the careful deposition of these burned elements alongside numerous fineware drinking vessels in a pit highlights the likely ritual nature of this deposit.

At Azoria on Crete (*Fig. 1*), I have studied several deposits containing the burned lower limbs of goats, sheep, and occasionally cattle.[65] The most significant of these deposits (125 identifiable, burned specimens) comes from the vicinity of a large, multi-roomed complex named the Protoarchaic Building. The central room has a hearth, indicating to the excavators that this large structure might be a Cretan hearth temple with associated industrial activity, including a kiln.[66] A large ashy fill layer is found directly outside the Protoarchaic Building (in trench B3000), representing a longterm accumulation of hearth cleanings alongside a large quantity of fineware drinking vessels. Over one quarter of the zooarchaeological specimens in this assemblage of bone were burned (*Fig. 2A*).[67] These specimens were heavily burned, entirely carbonized and frequently calcined. They were heavily fragmented, and few of the burned bones could be identified.[68] However, similar to other contexts discussed here, over 80% of the identifiable, burned assemblage derived from lower limb elements of sheep or goats.[69]

A series of smaller structured, burned assemblages have also been found in Late Archaic contexts at Azoria. Three of these assemblages come from the floors of houses, and the fourth derives from a stone bin in a civic storage building.

The assemblage of burned bones (52 identifiable, burned specimens) from the floor of the kitchen (E100) in the North Acropolis Building was concentrated in a dump of burned plant and animal debris found adjacent to the hearth (*Fig. 2B*).[70] The burned material in this assemblage was partially carbonized to completely carbonized and very few specimens were calcined. While most of the burned material derived from sheep or goat, it included an articulated portion of a cow foot and an articulated goat ankle. Over 70% of the burned assemblage derived from lower limbs of cattle, sheep, and goats.[71] The material was not heavily fragmented or trampled indicating it likely dates close to the abandonment of the settlement. The unburned assemblage embedded in the floor of the kitchen "contains a considerable component of major meaty limb-bone (food) elements ..."[72]

Another assemblage from the kitchen of the Northeast Building (A2100) shows a similar anatomical pattern to burning (17 identifiable, burned specimens; *Fig. 2C*).[73] This assemblage is overwhelmingly comprised of lower limbs (94%) from goats and sheep. The material was completely and evenly carbonized but rarely calcined and not heavily fragmented. While the excavators did not note that these burned bones were found in one discrete deposit, their taphonomic and anatomical patterns match the pattern present elsewhere at Azoria, and their condition (fairly complete) indicates they were likely burned near to the time of abandonment and were not trampled.

The final residential assemblage showing signs of burning at Azoria comes from the floor of a hall in the Northwest Building (D1500; *Fig. 2D*).[74] Most of the burned material was heavily carbonized and occasionally calcined. With the exception of a few specimens (including an articulating goat ankle), this burned assemblage consisted mostly of burned right-sided sheep/goat metatarsals (lower back foot) and left-sided goat horn cores. The assemblage contains 39 identifiable, burned specimens, but seems to have very specific anatomical patterning.

A similarly patterned and burned assemblage (53 identifiable, burned specimens) was excavated in the summer of 2017

[61] Dibble 2018, table 6.
[62] Dibble 2017, 182–184, table 6.6.
[63] Coulson *et al.* 1983, 46. The DA II (Dark Age II) ceramic phase at Nichoria dates approximately from 975–850 BC.
[64] The remaining burned specimens from Early Iron Age Nichoria are scattered across various deposits.
[65] See Dibble 2021 for a more detailed statistical analysis of these sacrificial deposits at Azoria. It should be noted that study of zooarchaeological material at Azoria is still ongoing.
[66] Haggis & Mook 2013, 6–9.
[67] Dibble 2017, 184–186. This proportion of burning is exceptionally high for the site, especially for such a large deposit.
[68] Dibble 2017, table 6.8.
[69] Dibble 2017, table 6.9, fig. 6.13.
[70] Haggis *et al.* 2011b, 475–476.
[71] Dibble 2017, 187–188.
[72] Haggis *et al.* 2011b, 476.
[73] Dibble 2017, 188.
[74] Dibble 2017, 188–189.

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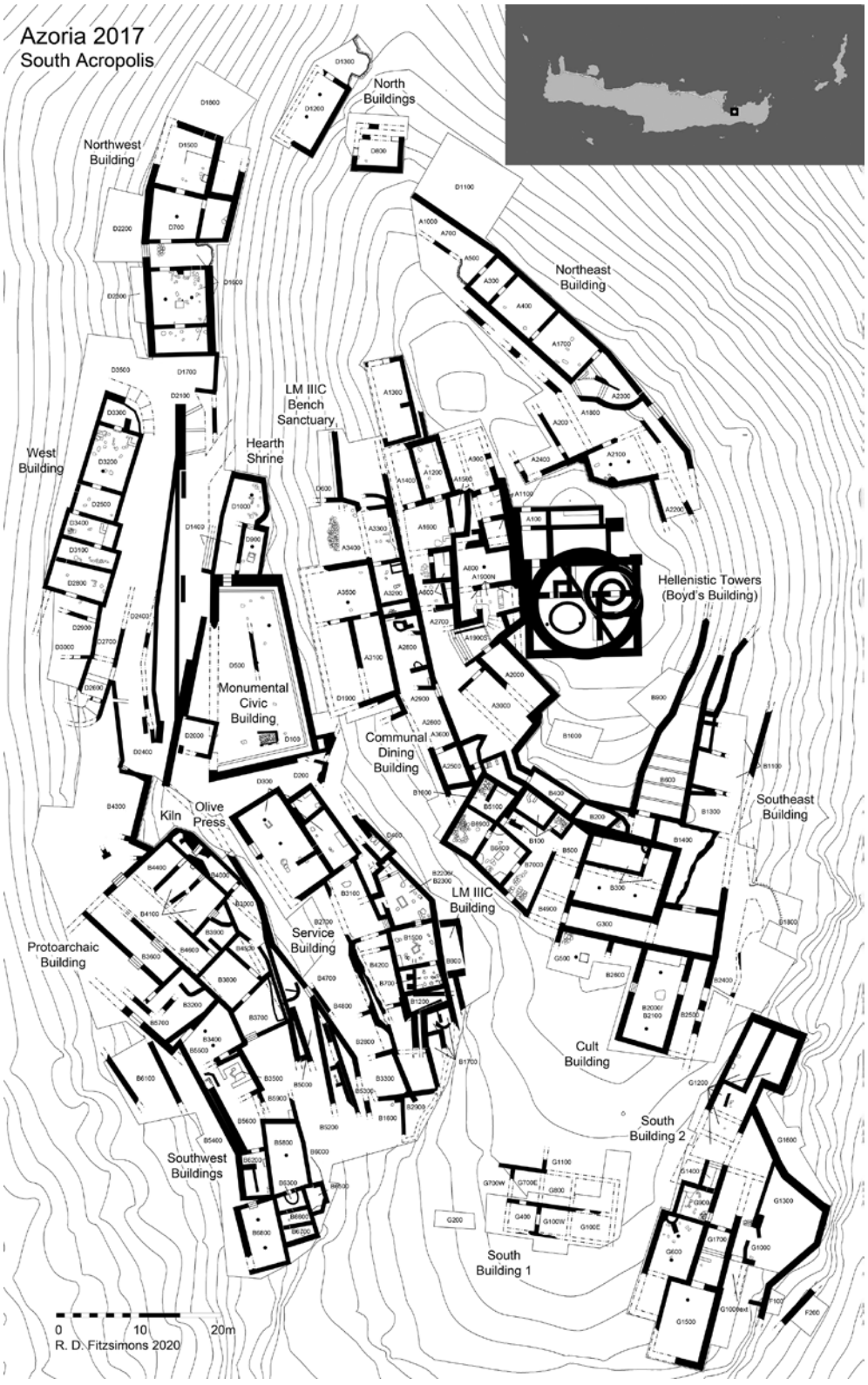

Fig. 1. Architectural and excavation plan (by Rodney Fitzsimons) of the south peak at Azoria with buildings and trenches labeled, courtesy of the Azoria Project. In upper right corner, the location of Azoria on the island of Crete (by Jonida Martini).

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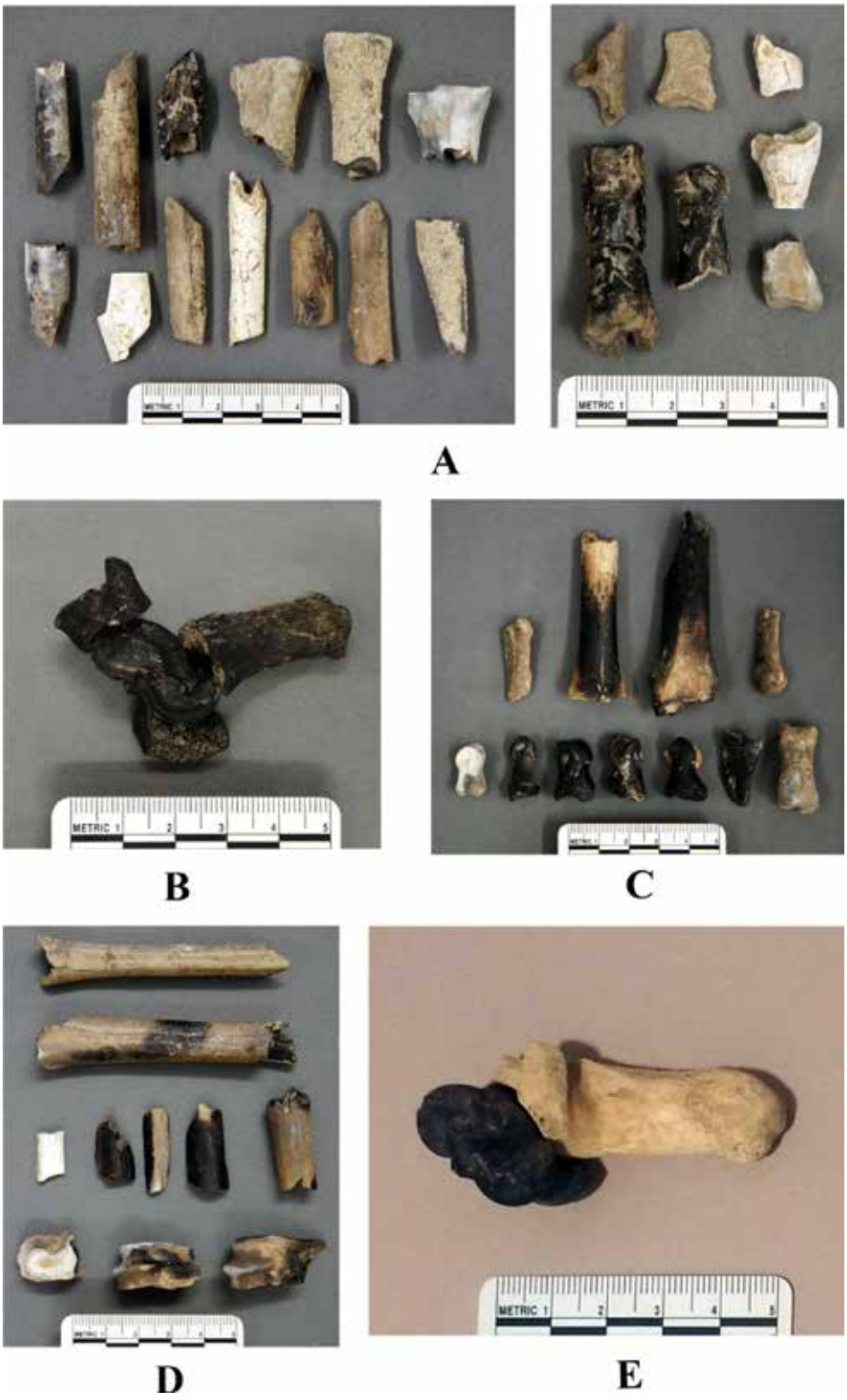

Fig. 2. A) selection of carbonized and calcined lower limb elements from B3000; B) an articulating and fully carbonized goat ankle (distal tibia, astragalus, and calcaneus) from E100; C) burned feet and toe bones from A2100; D) burned metatarsals from D1500; E) articulating goat ankle from D3200: burned astragalus and unburned calcaneus. Photographs: Flint Dibble.

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from a stone-lined bin in a large civic storage building known as the West Building (*Fig. 2E*). While there is no evidence for side selection, the burned material from this bin mostly derives from the heads/horns/teeth and feet (85%) of sheep and goats (a few of the specimens were lower limbs from pigs and cattle). Like the residential deposits described above, most of the burned specimens in the bin here were completely carbonized with few examples of calcination. Interestingly, there is a completely carbonized astragalus that articulates with an unburned calcaneus. Both are complete and from the same goat ankle. The astragalus was evidently disarticulated from the calcaneus and burned separately, but both were deposited together. There are several examples of joining unfused epiphyses from both the burned and unburned zooarchaeological material in this assemblage,[75] suggesting both derived from the same activity that left a structured assemblage carefully deposited together in the stone-lined bin.

The settlement of Azoria seems to have been peacefully abandoned at the end of the Archaic period, around 480 BC. The valuables were removed, certain walls were dismantled, and the roofbeams were torched until the collapse of the clay roof smothered the flames. None of the burned bones from these highlighted assemblages show burning on a single side, although a few of the burned bones scattered elsewhere do.[76] Therefore, these anatomically patterned assemblages from the Late Archaic period were exposed to a fire on all sides, but a controlled fire that did not calcine nor heavily fragment them. All of these burned assemblages are dominated by lower limb bones, sometimes accompanied by head elements. This anatomical focus on lower limbs contrasts with the anatomical patterns of unburned bones in the same spaces and elsewhere on the site.[77] Given the context of these clearly structured and well-preserved assemblages on the floors of houses and within the bin of a civic storehouse, our current interpretation is that these represent abandonment sacrifices. These sacrificial deposits might have represented the last meal at their homes by the inhabitants of Azoria.

In Late Classical and Hellenistic Athens too, there are a number of assemblages of burned bones following a similar pattern in "pyre" deposits found in the Industrial District.[78] These burned deposits included the "meat-poor" elements of sheep and goats, "primarily the lower limbs and feet, some skull fragments ..."[79] These "pyre" assemblages have been interpreted as sacrificial based on the zooarchaeological remains and other ritual vessels (including miniatures) deposited. Susan Rotroff suggests these form a kind of "Industrial Religion."[80] Some are found in construction or renovation deposits (building offerings) while others are found in abandonment deposits, perhaps similar to those discussed above at Azoria. But others seem to have been deposited during the life of a building.

Finally, a re-examination of burned material from Kommos suggests this form of lower limb sacrifice was also present there in the early Archaic period. While burned bones in deposits from this period (both near to altars and further away) are mostly dominated by burned sheep and goat thighbones, the collection of burned cattle specimens provides a different story. A group of burned vertebrae in a deposit found near Altar U (700–600 BC) associated with Temple B indicates the offering of a tail (*osphys*). Also in these altar deposits is a group of burned lower limb elements from cattle.[81] Most burned cattle remains from the sanctuary during the pre-hiatus period at Kommos consist of burned lower limbs.[82] The burned remains during the subsequent Classical and Hellenistic periods are dominated by burned sheep and goat hindquarters.

The pattern of burned lower limb—and less commonly head—elements might relate to a scene in the *Homeric Hymn to Hermes*. After stealing a herd of Apollo's cattle, Hermes expressed remorse. His first step was to try to hide the crime by stealing them at night and then marching the cattle backwards, so that the trail led in the wrong direction. While sheltering in a cave, Hermes invented fire to cook his meal.[83] Next, he slaughtered two of the cows and skewered and roasted the meat, fat, and innards. After laying out twelve portions by lot (presumably for the twelve gods), Hermes refrained from

[75] A burned pig distal humerus and a burned sheep first phalanx both included joining, burned epiphyses. Unburned joining epiphyses from this bin include two goat proximal radii, a goat distal metapodial, a sheep/goat distal metacarpal, and a sheep/goat proximal femur. It is likely that the whole assemblage derives from a single activity, a portion (mostly lower limb and head elements) was burned but all of the assemblage was deposited together.

[76] One would expect bones trampled into the floor and burned during the destruction of a building to be burned (or more heavily burned) on the side of the bone exposed to the fire above.

[77] See Dibble 2017 for more detail on unburned assemblages at Azoria.

[78] See Rotroff 2013 for a detailed treatment of the context and material culture in these deposits. The name "pyre" is a misnomer related to the fact that initially it was thought that the burned bones in these deposit derived from humans.

[79] Rotroff 2013, 41, n. 158.

[80] Rotroff 2013, 75–85.

[81] Reese *et al*. 2000, table 6.2 records a large number of burned tarsal (20 fragments), metapodial (15 fragments), and phalanges (26 fragments) found associated with Altar U.

[82] For example, the burned cattle specimens from the Northeastern Dump #2 associated with Temple A also contained a large number of lower limb specimens (Reese *et al*. 2000, table 6.2). For more detail see Dibble 2017, 193 and figs. 6.21–6.23.

[83] There are several parallels between this myth and the Prometheus myth found in Hesiod (Stocking 2017, 24–25, 97–117), heightening the conclusion that the story involving Hermes might represent an alternative or related aetiology for this type of sacrifice.

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eating, instead suffering to subsist only on the sweet smoke. Afterwards, the god cleaned up the space by packing up the remaining meat and fat, burning both the feet and heads of the cattle in the fire, and then quenching the fire.[84]

It is unclear exactly how this passage maps out on the collections of burned lower limbs and occasional head/horn elements described above, but it does seem to provide an aetiology for a somewhat similar ritual. Not only are similar body parts burned, but frequently the deposits are small (less than a few dozen identifiable specimens), implying a small number of victims, and many of the specimens are completely carbonized, but not calcined, suggesting the flames were intentionally put out. Perhaps, given that Hermes was cleaning up after himself, this aetiological myth suggests that lower limb/head burning was conceptualized as a form of ritual cleaning. In any case, the large number of archaeological examples deriving from Late Bronze Age through Hellenistic Greek contexts indicates that burned lower limbs (and sometimes heads) were an important ritual pattern, frequently deposited in settlements or other private contexts, and occasionally in sanctuary contexts.[85] It is also possible that there are more patterns to be explored in burned bones from varied contexts, especially the tantalizing evidence of burned mandibles and humeri from the Palace of Nestor or that of burned astragali from the Sanctuary of Vryokastro on Kythnos.[86]

Unburned bones and sacrificial butchery

Unfortunately, deposits of burned bones from sanctuary contexts provide little evidence as to how victims were transformed into cuts of meat and butchered bones. The redundant anatomical picture of burned thighbones combined with the fact that burning and fragmentation frequently obliterate evidence of cutmarks means we can say little beyond that these bones were burned. This is a shame because sacrificial butchery was conducted by cultic officials, an occurrence so regular that the term *mageiros* could refer to either a commercial butcher or a sacrificial officiant.[87] Vase-paintings and documentary descriptions of sacrifice show that sacrificial butchers performed their cultic role of carcass division; certain portions were divided among humans and others were kept aside for the divine.[88] It is plausible to consider that thighbones or other elements consecrated for the divine might have been treated differently than anatomical elements apportioned to humans.

I have studied a deposit of bones (255 identifiable specimens) from a fill layer of beach sand deposited during renovations under the floor of the Late Archaic period Temple of Zeus at Histria (now in Romania).[89] Two different assemblages sorted by taphonomy were excavated from the sandy fill: those that were abraded and beach worn and those that were not.[90] Both the beach worn and unworn assemblages lacked thighbones (only one beach worn sheep/goat femur was present) suggesting these derived from sacrificial practices at the altar. Given that most of the cattle and pig specimens were heavily beach worn, it is likely that these species were intrusive. The remaining assemblage of sheep and goat remains included meatier body parts (trunk and upper leg bones) that were mostly unworn and less meaty body parts (head and feet elements) that were mostly beach worn.

The taphonomic and anatomical pattern in this zooarchaeological deposit at Histria allows us to recreate much of the process of sacrifice at the sanctuary that contributed to this assemblage. After the slaughtering of an animal, the less meaty elements were deposited in one location near the beach, presumably where these early stages of slaughter and butchery took place. This process has been nicknamed "the Schlepp Effect": it is easier to discard the less-meaty (and presumably less desirable) parts of the carcass near the initial slaughter since there is no need to "schlepp" them elsewhere.[91] At some point, the thighbones were carefully cut out of the carcass, burned on the altar and deposited elsewhere. And finally, the meatier elements were deposited in a third, non-beach location, presumably after food preparation and/or consumption. Some of the slaughter refuse from the beach and meal refuse from elsewhere were eventually redeposited together (after enough time that the slaughtering refuse had become beach worn) to level the ground during subsequent renovations.

The butchery marks found on this unburned assemblage provide further evidence for carcass processing (*Fig. 3*). Many of the vertebrae from these sheep/goats were chopped in half with a cleaver, indicating that the carcass was bisected, likely while suspended in the air. Cleaver-chops through the shoulder and hip sockets show the manner in which the limbs were dismembered from the trunk.[92] Both cleavers and smaller knives were used to break down the joints into smaller cuts and remove the meat from the bones, presumably in order to be boiled for a sacrificial feast. These operations provide details about large-scale sacrificial events and the various operations conducted around the sanctuary.

[84] *Hymn Hom. Merc.* 136–140.
[85] See Georgoudi in this volume, *Chapter 8*, for additional examples of the ritual treatment of heads.
[86] Trantalidou & Theodoropoulou 2017.
[87] Berthiaume 1982, 17–62.
[88] Berthiaume 1982; Tsoukala 2009.
[89] Excavations and zooarchaeological analysis of this deposit and sanctuary are ongoing: these results should be taken as preliminary.
[90] The temple is located near the ancient shore of the Black Sea.
[91] Klein 1976, 87–88.
[92] For more on hip-dismemberment see Morton in this volume, *Chapter 2*.

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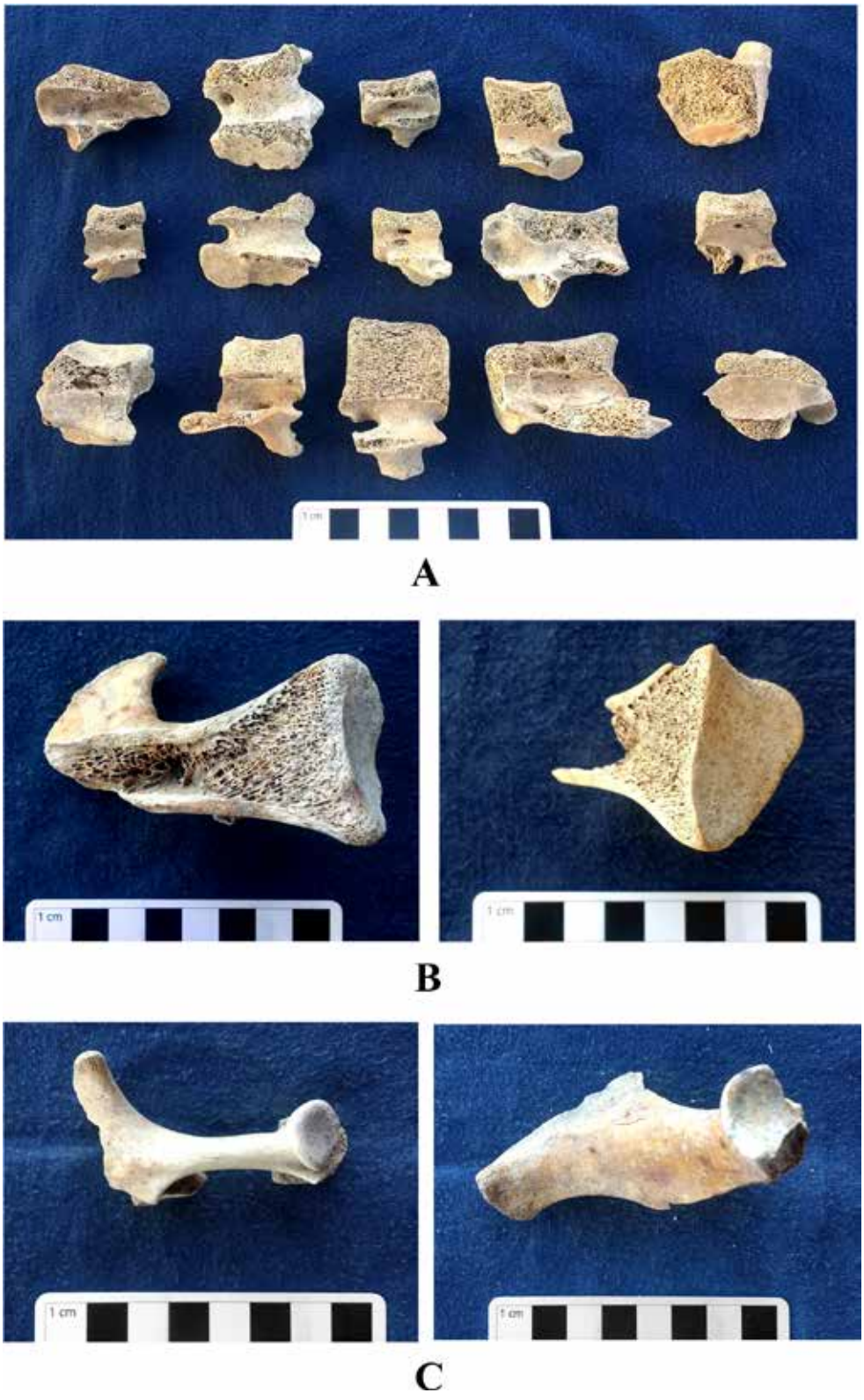

Fig. 3. Examples of cleaver-chopped specimens from the Temple of Zeus at Histria. A) bisected vertebrae; B) chops through the glenoid cavity of the scapula; C) chops through the acetabulum of the pelvis. Photographs: Flint Dibble.

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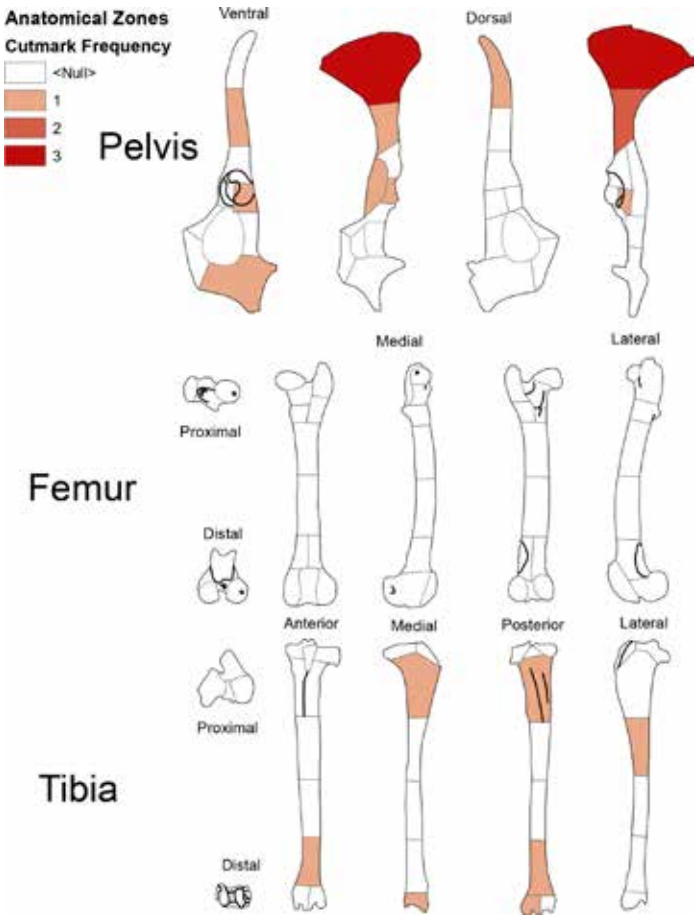

Fig. 4. Frequency of knife-slices within different anatomical zones of cattle pelves, femurs, and tibiae from Late Archaic and Classical Athenian Agora. Drawing: Flint Dibble.

Similarly, it might still be possible to consider the distribution of cutmarks on unburned remains from settlements to examine sacrificial activity. For a detailed analysis of butchery in zooarchaeological assemblages, I designed a database to assign cutmarks to precise anatomical zones along all planes of an anatomical element.[93] The use of touch-screen technology to simply touch where a cutmark was located on a bone diagram allowed the rapid collection of detailed cutmark patterns within large assemblages.

Cutmarks on zooarchaeological specimens from the American School of Classical Studies at Athens excavations at the Athenian Agora provide evidence for the dynamic nature of butchery in the urban Greek environment.[94] Cleavers begin to replace knives in the Early Iron Age, and, by the Classical period, most visible cutmarks were made by cleaver-chops.[95] These changes in butchery likely relate to an increase in large-scale sacrifice and the professionalization of butchery in the *polis*, both contexts where efficient methods would be useful.

Aside from a few specialty cuts of (likely preserved) pork,[96] the butchery patterns at the Athenian Agora are broadly similar to those described above at the Temple of Zeus at Histria. The spine of the animal was frequently chopped down the middle, and then the limbs were disjointed with cleaver blows. Cleavers were far more commonly used in Athens than at Histria to break down these larger joints into smaller cuts of meat, likely due to the commercial nature of most deposits with zooarchaeological assemblages excavated in the Agora. Commercial butchers aimed to operate efficiently.

Interestingly, if we examine the distribution of cutmarks on cattle skeletons in the Archaic and Classical Athenian Agora, there is a distinct absence of cutmarks on cattle thighbones. There is not a single knife-slice on a cattle femur specimen from the site during these periods (*Fig. 4*). This absence is striking given that (mostly unburned) femora are not drastically underrepresented in the Agora's assemblage. The few

[93] Dibble 2015, 254–255.
[94] Dibble 2017, 211–219.
[95] Dibble 2017, 212.
[96] Dibble 2017, 217.

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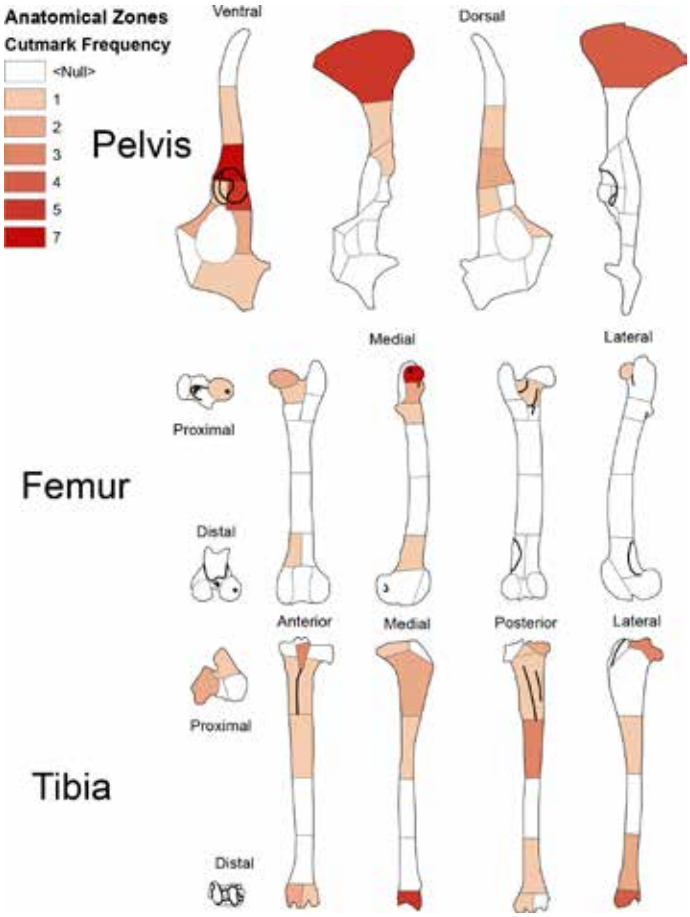

Fig. 5. Frequency of cleaver-chops within different anatomical zones of cattle pelves, femora, and tibiae from Late Archaic and Classical Athenian Agora. Drawing: Flint Dibble.

cleaver-chops found on thighbones are almost entirely chops through the caput femoris (*Fig. 5*). After being chopped off the femur, this small ball-joint would have functionally been part of the pelvis, whose socket it remained embedded within. The remaining cattle femur fragments from the site are, for the most part, uncut.

This pattern contrasts with the femora of sheep/goat, which more frequently display cutmarks (*Figs. 6–7*).[97] It seems possible that cattle femora were treated specially by Classical Athenian butchers. Perhaps, on average, butchers expected cattle femora to be treated to a "normative" *thysia* style sacrifice, while the same was not true for other species. Given that most of the cattle femur fragments found in the Classical Athenian Agora were mostly unburned, not all specially-treated femora ended up as a *thysia* style sacrifice. However, the absence of cutmarks on these cattle thighbones is a testament to the skill of these butchers who were careful not to leave such marks on this special anatomical element.

A similar analysis of butchery patterns at Archaic Azoria highlights the role of professional butchers in association with civic feasting, contrasting with less-efficient butchery methods found at houses in the settlement. The Communal Dining Building, located near the top of the South Slope, was an important locus for civic feasting.[98] It was a large complex of numerous dining rooms, kitchens, and storerooms. The zooarchaeological assemblage from the building, dominated by domesticated animals, is overall quite similar to that found in houses, located further downslope.[99] Goats are by far the most common animal throughout the site followed by sheep, pig, and cattle.

The primary difference between the animal remains from civic feasting contexts vs those found in household contexts is that more of the butchery marks found on bones in the Communal Dining Building derive from cleaver-chops (31%),

[97] The larger number of cutmarks on sheep/goat femora than on cattle at the Athenian Agora is notable given the similar number of femur specimens from each taxon (Dibble 2017, tables 5.7–5.8).

[98] Haggis *et al*. 2011a, 4–16.

[99] Dibble 2017, 150.

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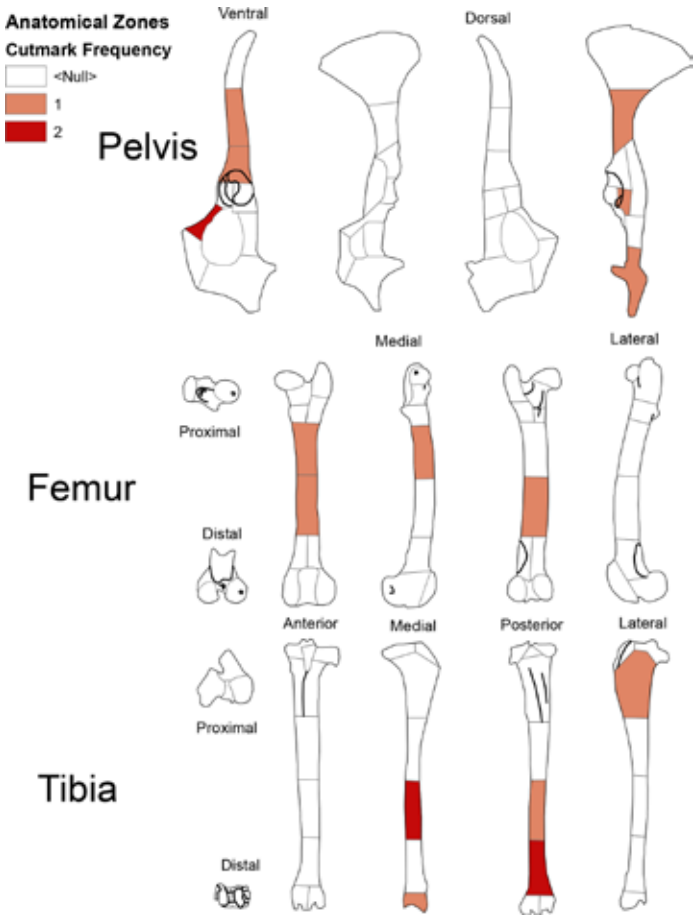

Fig. 6. Frequency of knife-slices within different anatomical zones of sheep/goat pelvis, femur, and tibia from Late Archaic and Classical Athenian Agora. Drawing: Flint Dibble.

while very few butchery marks from households derive from cleaver-chops (15%).[100] The chopped remains from the Communal Dining Building mostly derive from three of its middens, and not from the floor assemblages of its kitchens or halls. These cleaver-chops come from the same anatomical locations and originate either from splitting the vertebrae in half or chopping through the shoulder socket (glenoid cavity) or hip socket (acetabulum). The consistency of these chops, mostly located in midden deposits, suggests that different butchery procedures were used during large-scale feasts than in the course of smaller-scale civic or residential dining. The precision of these chops, those on the pelvis are almost entirely found in one tight zone located on the lateral half of the ventral surface of the acetabulum (*Fig. 8*), indicates that those performing them were likely professional butchers operating with consistent methods.[101]

There is only one altar associated with the Communal Dining Building, a ground altar found inside.[102] The most common burned specimen in this altar is the thighbone (eight identifiable, burned specimens); however, the number of identifiable, burned specimens (19) is likely too small to be sure of a pattern.[103] The anatomical pattern from the large middens (as studied so far) shows that all body parts are present in large numbers, unburned.[104] These large-scale civic feasts were probably conceptualized as a sacrificial event. While there are no texts present from Azoria that might give an indication of how these events were conceptualized, contemporary texts from elsewhere on Crete identify cultic officials conducting sacrifice at urban sanctuaries.[105]

[100] Dibble 2017, 205, table 7.4. The difference is statistically significant ($\chi 2 = 14.245$, $p<0.001$)

[101] Seventeen cleaver-chops are found in this tight zone. No other zone on the hindlimb has more than four cleaver-chops.

[102] Haggis *et al*. 2011a, 10–13.

[103] Dibble 2017, table 6.10.

[104] Dibble 2021, tables 1–6 present and analyze the data for several thousand identifiable specimens from the Communal Dining Building and its middens.

[105] Cf. e.g. Gagarin & Perlman 2016, 184, who present an inscription (Da1) from Datala (*c*. 500 BC) where the cultic official (*poinikastas*) performs sacrifices in exchange for revenue from the sanctuary.

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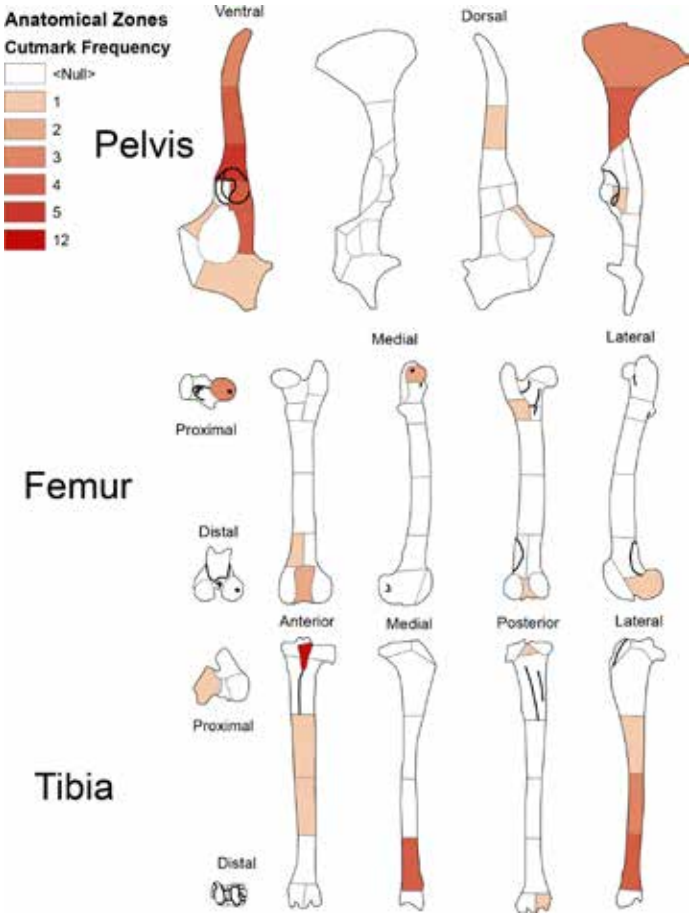

Fig. 7. Frequency of cleaver-chops within different anatomical zones of sheep/goat pelvis, femur, and tibia from Late Archaic and Classical Athenian Agora. Drawing: Flint Dibble.

Given the consistent location and professional nature of the butchery patterns, within a context for civic feasting, it seems likely that these chop marks were made by a cultic official, acting as butcher in the course of a sacrifice. It is possible that only a few specimens were burned inside on the ground altar (*pars pro toto*), an event involving a smaller group. However, the initial stages of butchery—slaughter and dividing the carcass into several larger joints—were perhaps the important spectacle performed for a larger group, with the remains deposited in a nearby midden.

Conclusions

The evidence presented above highlights various ways in which zooarchaeology can contribute to an anatomy of ancient sacrifice, from snout to tail. However, beyond that, the evidence also highlights a large degree of variability in sacrificial practices. It is necessary to break out of our comfort zone of sanctuary and altar contexts and engage with more ambiguous evidence for animal sacrifice deriving from ancient settlements. The differences and similarities between the two contexts can only serve to inform one another. However, it is also important to be cognizant of the anatomical nature of the bones themselves, as the consistent underrepresentation of fragile thighbones in many contexts worldwide demonstrates.

It is interesting to note that most of the deposits that conform to the lower limb/head sacrifice—whose aetiology seems to be referenced in the *Homeric Hymn to Hermes*—derive from smaller houses/workshops or pits with small numbers of zooarchaeological remains. With few exceptions (the Protoarchaic Building at Azoria or Altar U at Kommos), these small deposits of burned bones contrast with the large deposits of burned thighbones and tails found in association with altars or sanctuaries. Perhaps these anatomical differences in burned bones relate to differences in sacrificial ritual between public vs private spheres rather than to any presumed differences between deities (e.g. "chthonic" vs Olympian).[106] Perhaps the use

[106] Cosmopoulos & Ruscillo 2014, 270 makes this argument for the small number of burned pig lower limb bones found in discrete deposits in Late Bronze Age Eleusis. This argument of a private sacrifice also correlates well with the suggestion by Rotroff 2013 that the pyres in Hellenistic houses/workshops at Athens were a part of "industrial religion."

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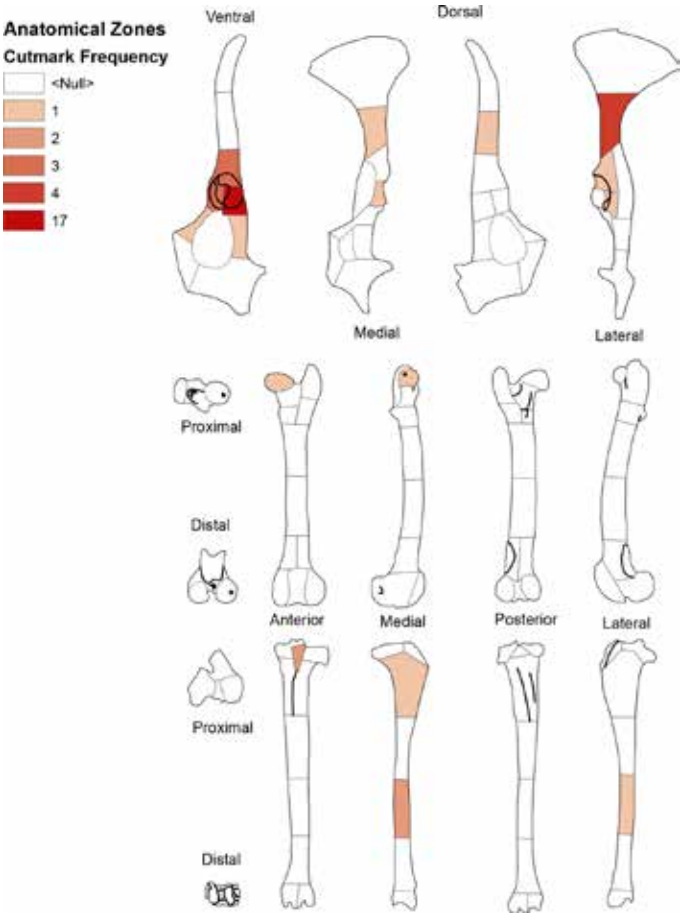

Fig. 8. Frequency of cleaver-chops within different anatomical zones of sheep/goat pelves, femurs, and tibiae from Late Archaic Azoria. Drawing: Flint Dibble.

of a lower-quality cut of meat made more sense in a private sphere, in contrast with the higher quality implied by a thighbone in a public setting.[107]

Moreover, the treatment of unburned bones in sanctuary and settlement contexts provides further nuance to the anatomy of ancient sacrificial ritual. The remains from middens of the Communal Dining Building at Azoria highlight the fact that sacrificial feasting need not always include burned bones. Ekroth has proposed examining sacrificial rituals in terms of intensity.[108] She contrasts the normal *thysia* (thighs and tails) as "low-intensity," with a holocaust as "high-intensity". However, perhaps this idea should be expanded into a larger continuum, embracing unburned remains, lower quality portions, bones and fat from higher quality portions, portions with the meat still attached (moirocausts), and the whole animal (holocausts).

Cultic officials were also well-known, not only as boneburners, but as butchers (both commercial and sacred). The lack of cutmarks on thighbones at the Athenian Agora highlights the confusing relationship between these roles, as not all of the carefully deboned thighs were burned. However, the clear order of operations evident in the anatomically-patterned deposition of bone material at the Athenian Agora, Azoria, and Histria reveal both the professional nature of ancient cultic butchers, and the fact that butchery, itself, could perhaps be considered part of the spectacle.[109] At Azoria, it appears as if the large cleaver-chops used to transform the carcass into larger joints were made with different tools and in a different location than the smaller knife slices used to transform the joints into cuts of meat within the kitchen. As Isaakidou

[107] The use of the term *hypermeridia* in two Cretan inscriptions regulating the swearing of oaths—an Archaic inscription from Dreros (Gagarin & Perlman 2016, Dr7, 219–221) and a Hellenistic inscription from Eleutherna (*SEG* 41, 743)—potentially highlights the importance of the upper portion of the leg in contrast to a lower portion of the leg.

[108] Ekroth 2008, 90–93.

[109] Pl. *Phaedr.* 265e potentially alludes to professional butchers who carefully dismember animals at the joints. The prominent role butchery is given in some iconographic depictions (e.g. on the Euphronios Krater; Cerveteri, Museo Nationale Cerite no number; *BAPD* 187) confirms the spectacular nature of the activity.

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and Halstead have suggested with regards to ancient sacrifice: "zooarchaeologists may be investigating not *whether* but *how*—or *how ostentatiously*—the slaughter, consumption, and discard of animals was ritualized."[110] It seems likely that the actual dismemberment of an animal, and its transformation from the carcass of a victim to cuts of meat, was an important component of these ostentatious rituals.

The more we investigate these patterns, the more complex and messy our understanding of ancient sacrifice becomes. Ancient Greek cultic practice was not static, but rather dynamically variable across regions, chronological periods, groups of practitioners, and between different rituals. However, one thing is clear: animal sacrifice, evident in structured assemblages of burned and unburned bones, was a critically important component of many ancient rituals. The entire animal was crucial to these rituals, and various parts of the animal were treated differently based on the deity worshipped, the private or public context, the intensity of the spectacle, and numerous other factors. Additional investigation into anatomical patterns of distributions, cutmarks, and burning will only continue to add to our understanding of the anatomy of ancient sacrifice.

FLINT DIBBLE
School of History, Archaeology and Religion
Cardiff University
dibblew@cardiff.ac.uk

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[110] Isaakidou & Halstead 2013, 88.

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FRANÇOIS LISSARRAGUE †

4. Vous trouvez sabot ?

Sur la table et sous la table, un morceau peu choisi

Pour Jean-Louis Durand (1939–2016), *in memoriam*

Abstract

This paper discusses the iconography of hooves as they appear in Attic vase-painting, in relation with sacrifice and meat consumption. Three groups of images are considered. The first group shows dogs gnawing a bit of the leg, recognizable by the hoof, which is regularly depicted. A second, more limited group deals with shield devices showing a bird holding in its beak the same kind of leg; this *episema* is tentatively related to *bomolochia*. The third and most abundant group is related to the distribution of boneless legs, again identified by the hoof, which is always visible. It is argued that the insistence on the hoof is a pictorial strategy which makes clear the nature of the object manipulated, and the reference to meat distribution. The importance of this anatomical detail, used as a semantic element, is also revealed by some other vases which are analyzed in conclusion.

Keywords: Greek vase-painting, iconography, Attic vases, deity, dog, hoof, deboned leg (*gigot mou*), banquet, gift, visual play

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Le sabot, en relation avec la consommation et la distribution des viandes, constitue un élément anatomique remarquable dans l'imagerie attique du sacrifice, et je voudrais brièvement en analyser les occurrences dans le répertoire des peintres de vases. On le trouve dans trois séries d'images, qui ont été étudiées indépendamment, surtout du point de vue du rituel, ce qui ne surprendra pas. En m'appuyant sur ces travaux,[1] je me placerai du point de vue des imagiers et de la construction de l'image pour mieux comprendre la logique qui met l'accent sur cette partie extrême, non consommable, de la victime sacrificielle.

Dans le premier groupe d'images où apparaît cet élément, il prend un aspect quasi anecdotique : un chien ronge une patte animale, reconnaissable précisément à la forme du sabot qui assure l'identification de ce reste, donné au chien. C'est un détail pittoresque, qui n'a rien d'obligatoire mais vient animer les scènes où il figure. Le plus souvent, le chien se tient sous un lit de banquet et l'on comprend aisément la provenance de cette part de viande ; le chien prend part au festin. Il s'agit là, comme le rappelle justement Mario Iozzo, citant Homère, de chien de banquet, *trapezees kunes*,[2] qui marquent le statut social des banqueteurs comme chasseurs.[3] Sur l'exemple le plus ancien, une coupe de Siana[4] datée de 580–570 av., deux chiens se tiennent sous les lits des banqueteurs et rongent un os de forme indistincte. Sur une amphore tyrrhénienne[5] de dix ans postérieure, le chien est recroquevillé sous le lit, isolé par les pieds du meuble, entièrement concentré sur l'os qu'il ronge. Quarante ans plus tard, vers 520, le peintre d'Achéloos, qui

[1] Durand 1984 ; Gebauer 2002, 290–293, catalogue Zv41–Zv91 et 550–559 ; Tsoukala 2009 ; Ekroth 2013 ; Bundrick 2014.
[2] Hom. *Od.* 17.309–310. Iozzo 2012, 9, n. 50. Voir aussi Petrakova 2015, 292.
[3] Schmitt & Schnapp 1982.
[4] Samos, Vathy, Archaeological Museum K1280 ; coupe ; *BAPD* 300305 ; peintre KX, *ABV* 26/27–28.
[5] Bochum, Ruhr Universität, Kunstsammlungen S1104 ; *BAPD* 9019202, Tyrrhenian group.

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Figs. 1a & 1b. Bâle BS2405 ; amphore, peintre d'Acheloos, vers 520 av. © Antikenmuseum Basel und Sammlung Ludwig.

fait partie du groupe de Léagros, a souvent répété ce motif, par exemple sur une amphore pointue[6] où figure une scène de banquet comportant trois lits, chacun occupé par un homme allongé et une femme assise au pied du lit. Sous les lits, trois chiens sont accroupis ; deux d'entre eux rongent un os où l'on reconnaît nettement la forme du sabot (*Fig. 1*). Sur un psykter,[7] un chien accroupi sous un lit relève la tête vers son maître tout en tenant une patte dans sa mâchoire ; sur le col d'un cratère à Tarente,[8] on voit une chienne, entre la tête d'un lit de banquet et un comaste dansant, levant la tête et serrant dans ses mâchoires une patte dont on voit nettement le sabot fendu.

Sur un plat à figures noires aujourd'hui à Yale,[9] la scène principale représente Dionysos porté par un mulet, et dans le segment isolé par la ligne de sol, un chien à l'arrêt qui ronge une sorte de gigot, où l'on reconnaît facilement le sabot animal et la patte. La part de viande est ici plus copieuse. Le lien entre le chien et Dionysos ne s'impose pas, car les deux parties de l'image sont séparées, mais il est tentant d'associer Dionysos qui va faire la fête (comme le suggère la petite outre suspendue au sexe du mulet qui le porte) et le festin que semble déguster le chien.

C'est de même à un festin que l'on assiste sur une amphore attribuée au peintre de Sappho[10] où l'on voit Héraclès sur sa klinè, phiale en main, encadré par une femme à droite, un joueur de lyre à gauche et Dionysos soutenu par un satyre à droite. Devant le lit une table est chargée de sept longues tranches de viande qui descendent vers un chien en train de ronger une patte.

Les autres exemples de chiens rongeurs s'insèrent dans des contextes différents. Ce peut être un comos,[11] ou une scène de

[6] Bâle, Antikenmuseum und Sammlung Ludwig BS2405 ; *BAPD* 9048339 ; peintre d'Achéloos, *CVA Bâle* 5, pl. 27–29 (Suisse 10, pl. 510–512).
[7] Embirikos, collection privée, Londre, sans n° ; psykter ; *BAPD* 718 ; peintre d'Achéloos ; Filser 2017, 169–170, fig. 47.
[8] Tarente, Museo Archeologico Nazionale ; cratère à volutes ; *BAPD* 302866 ; peintre d'Achéloos ; Filser 2017, 173, fig. 50.
[9] Yale University Art Gallery 1913.127, plat, *BAPD* 8547 ; non attribué. Cf. *CVA Yale* 1, pl. 104 (USA 38, pl. 2044) et p. 60.
[10] Madrid, Museo Arqueológico Nacional 10916 ; amphore A ; *BAPD* 305509 ; peintre de Sappho, *ABV* 508.
[11] Amsterdam, Allard Pierson Museum, sans n° ; péliké ; *BAPD* 9030211 ; manière du peintre d'Achéloos (Borgers).

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Figs. 1c & 1d. Bâle BS2405 ; amphore, peintre d'Acheloos, vers 520 av. © Antikenmuseum Basel und Sammlung Ludwig.

récitation,[12] avec un orateur sur un bèma, entouré d'auditeurs, l'un debout, l'autre assis, et une chienne au pied du bèma. Le contexte festif n'est pas loin. On trouve également une chienne devant un guerrier à pied, menant un cheval, entre un vieillard à gauche et une femme à droite.[13] C'est cette fois l'oikos qui est évoqué et le départ du guerrier. Le rapport au sacrifice est plus distant mais n'est pas exclu, si l'on songe à la présence de chiens dans les scènes de hiéroscopie.[14] Deux chiens sont également associés à la découpe de la viande, sur une olpè à Heidelberg,[15] l'un d'eux s'occupe avec un morceau peu identifiable tombé de la trapeza, l'autre lève la tête pour avoir sa part.

Sur l'épaule d'une hydrie (*Fig. 2*)[16] deux jeunes gens nus luttent pour maîtriser deux bovidés : celui de droite a saisi l'animal par la patte avant droite. Deux adultes barbus vêtus de chitons, et tenant des lances, assistent à leur exploit. Au centre de la composition une chienne lève fièrement une patte dans sa gueule. L'animal est ici vu avant et après le sacrifice.

Enfin sur une hydrie à Munich,[17] deux adultes barbus, à l'arrêt, encadrent une statue d'Athéna combattante vers laquelle se retourne une chienne, patte dans la gueule. Là encore, l'esprit de la fête et du sacrifice aux dieux s'affirme par la présence de viandes distribuées, y compris aux chiens, ce qui marque à la fois l'abondance et l'implication large de la communauté, animaux compris.

Le motif peut même se retrouver sous une forme isolée, comme sur une coupe à bande[18] où l'on voit entre deux yeux, un chien à l'arrêt, une patte dans la gueule. Ce que cette image

[12] Dunedin, Otago Museum 48.226 ; péliké ; *BAPD* 302889 ; peintre d'Achéloos, *ABV* 386/12.
[13] Londres, British Museum B 178 ; amphore type B ; *BAPD* 302996 ; peintre d'Eucharides ABV 396/27.
[14] En particulier Würzburg, Universität, Martin von Wagner Museum L297 ; amphore ; *BAPD* 201654 ; peintre de Kléophradès, *ARV*² 181/1.
[15] Heidelberg, Ruprecht-Karls-Universität 253 ; olpe ; *BAPD* 10598 ; non attribué ; Gebauer 2002, fig. 173, Z 11.
[16] Berlin, Antikensammlung F1900 ; hydrie ; *BAPD* 302872 ; peintre d'Achéloos, *ABV* 385/27.
[17] Munich, Antikensammlungen 1727 ; hydrie ; *BAPD* 303002 ; peintre d'Eucharides, *ARV*² 397/33.
[18] Francfort, Museum für Kunsthantwerk 5702 ; coupe ; *BAPD* 12608 ; non attribué.

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Fig. 2. Berlin F1900; hydrie, peintre d'Acheloos, vers 520 av. © Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz. Photo: Johannes Kramer F 1900.

ne dit pas, c'est si le chien s'est comporté en prédateur qui a volé une part de carcasse, ou si c'est un compagnon familier auquel on a lancé une part pour l'associer à la fête. Il existe une intéressante variante de ce motif où l'on voit au lieu d'un chien une panthère. C'est le cas sur un lécythe où Dionysos est allongé en banqueteur,[19] et l'on comprend aisément la permutation entre le chien, compagnon des hommes, et la panthère dionysiaque. On retrouve sur une péliké du Louvre[20] deux panthères rongeant un os, associées à Dionysos et Athéna assis, eux-mêmes accompagnés d'Hermès debout.

Parmi ces variantes dionysiaques il faut signaler un satyre remarquable sur un cratère à colonnettes fragmentaire attribué à Lydos[21] ; il ne s'agit pas d'un banquet mais du retour d'Héphaïstos. Le dieu forgeron, hache en main, avance à dos d'âne (l'animal est nommé par une inscription : *onos*). Sous cet âne, un satyre est allongé au sol, le visage de face ; il tient une coupe de la main gauche et une patte animale de la main droite. Ces deux éléments créent une tension qui met en évidence à la double nature du satyre, humain et animal. Coupe en main, il fonctionne comme un buveur, mais la patte fait de lui l'équivalent des chiens qui se tiennent sous la table. Entre le sexe de l'âne et celui du satyre, un nom se déploie en arc de cercle : *oukalegon*, 'celui qui n'en a cure'[22], nom qui convient parfaitement à ce satyre festif.

[19] Bochum, Ruhr Universität, Kunstsammlungen S496 ; lécythe ; *BAPD* 2938 ; peut-être peintre d'Achéloos (Kunisch). Cf. aussi Berne, Blatter ; Gebauer 2002, fig. 297, M 3.

[20] Paris, Musée du Louvre F 376 ; péliké ; *BAPD* 302932 ; peintre de Nikoxenos, *ABV* 393/16.

[21] New York, Metropolitan Museum of Art 1997.388 ; cratère à colonnettes ; *BAPD* 46026 ; Lydos. Merci à Gunnel Ekroth de m'avoir rappelé cet extraordinaire détail.

[22] Voir Kossatz-Deissmann 1991, 165.

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Fig. 3. Paris BNF 420; cratère, peintre de Kleophrades, vers 500 av. © Serge Oboukhoff-BnF/ CNRS/MSH Mondes.

Tous les exemples de ce premier groupe d'images mettent en scène la relation entre les hommes ou les dieux et l'animal vivant qui partage les restes du sacrifice. L'objet qu'il dévore est très distinct, sans ambiguïté et facile à reconnaître. Le sabot prend ainsi l'apparence d'un signe minimal qui renvoie à l'ensemble du processus sacrificiel, dont le chien sous la table n'est que le bout de la chaîne. Ce motif, typique des figures noires, est rare en figures rouges, mais on le trouve au moins une fois, sur une coupe à figures rouges du peintre de Brygos, dans une scène de banquet.[23]

Le second groupe d'images est beaucoup plus réduit, et n'existe qu'en figures rouges. Il s'agit d'images dans l'image, d'images au second degré, d'épisèmes montrant un oiseau (du genre corbeau) tenant dans son bec une patte. Sur un fragment de cratère au Cabinet des médailles (*Fig. 3*),[24] on voit un guerrier penché en avant, sortant un bouclier de son étui. On distingue nettement la patte et le sabot dans le bec de l'oiseau. Il semble que le peintre Oltos ait particulièrement apprécié cet épisème qu'il a donné à Kaineus sur une coupe de Copenhague,[25] et à deux guerriers anonymes, l'un sur une coupe au Vatican,[26] l'autre sur une coupe à Londres où figure un départ en char d'Ajax.[27]

Dans ce contexte guerrier, on pourrait songer au sacrifice avant le combat,[28] mais rien de précis n'y renvoie ; de fait un tel sacrifice n'implique pas de répartition des viandes ni de restes à emporter.[29] Comment dès lors interpréter cette image ? Les oiseaux viennent parfois voler sur l'autel des dieux, comme le rappellent un fragment d'Archiloque et une fable d'Esope,[30] et comme on peut le voir par exemple sur un lécythe du peintre de Gela,[31] ou sur une coupe à Emory (*Fig. 4*).[32] Ce vol à l'autel, que le terme grec *bomolochia* désigne de manière peu flatteuse,[33] s'applique même à une variété de choucas (*koloion*), comme l'indique Aristote.[34] Quel lien avec Kaineus, les compagnons d'Ajax ou d'autres guerriers épiques ? Comment comprendre un tel motif sur les boucliers ? Les oiseaux

[23] Paris, Cabinet des Médailles 585 ; *BAPD* 203926 ; Peintre de Brygos, *ARV²* 372/28 ; voir Beazley 1952, 76–77.
[24] Paris, Cabinet des Médailles 420A ; *BAPD* 201689 ; peintre de Kléophradès, *ARV²* 185/37.
[25] Copenhague, Nationalmuseet 13407 ; *BAPD* 200447 ; Oltos, *ARV²* 59/57
[26] Vatican, Museo Gregoriano Etrusco 16584 ; *BAPD* 200281 ; Oltos, *ARV²* 55/15.
[27] Londres, British Museum E 16 ; *BAPD* 200511 ; *ARV²* 61/75.
[28] Jameson 1990.
[29] Merci à Gunnel Ekroth d'avoir attiré mon attention sur ce point.
[30] Archiloque épode 1, fr. 68 Lasserre (= fr. 176 West ; merci à Renaud Gagné qui m'a suggéré cette piste) ; Esope, *Fables* 1 (Hausrath).
[31] Palerme, Museo Archeologico Regionale T4 ; *BAPD* 10777 ; cf. Hatzivassiliou 2009, fig. 13.
[32] Atalanta, Emory University, Michael C. Carlos Museum 2000.1.2 ; *BAPD* 16565. Merci à Jasper Gaunt pour son aide.
[33] Voir Frontisi-Ducroux 1984, 29–50.
[34] Arist. *Hist. an.* 1.24.617b 18. Cf. D'Arcy Thompson 1936, 155.

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Fig. 4. Emory University, Michael C. Carlos Museum 2000.1.2 ; coupe à bande, peintre d'Oakeshot, vers 550 av. © Bruce M. White, 2008.

en épisème ne manquent pas, en particulier l'aigle, dont on comprend bien comment il peut être associé à la valeur guerrière. Faut-il comprendre ainsi le corbeau qui vient prendre sa part à l'autel et y voir une expression de la ruse, de la mètis ? La courte durée de ce motif—entre le peintre de Kléophradès et Oltos, autour de 510–500—est peut-être liée à une anecdote qui nous échappe.

Le troisième groupe d'images, de loin le plus important, essentiellement en figures rouges, est plus aisément compréhensible et connaît une longue durée. Le gigot ou l'épaule se rencontrent fréquemment à divers stades du processus sacrificiel. Tout d'abord au sacrifice proprement dit, au moment de la découpe. On voit en figures noires la découpe de la carcasse ; je ne reprendrai pas les analyses de J.-L. Durand auxquelles je renvoie.[35] Dans ce processus, le gigot est isolé, suspendu ou posé. Sur un cratère de Londres tout comme sur une oenochoé de Boston[36] le quartier de viande obtenu en dégageant la cuisse ou l'épaule figure dans le champ de l'image. La coupe de Makron au Louvre,[37] analysée par Gunnel Ekroth, montre une épaule non désossée. Les chairs sont attachées à l'os et tiennent verticalement. Sitôt l'os enlevé, les chairs deviennent flasques et pendent en lanières : c'est le « gigot mou » cher à Jean-Louis Durand.[38] Au médaillon d'une coupe attribuée au peintre de Thésée (*Fig. 5*),[39] le quartier de viande est porté sur le dos d'un homme qui semble ployer sous la charge ; le morceau est de dimensions considérables, peut-être hors échelle ; le peintre en tout cas a pris le soin de bien marquer la présence de la patte et du sabot, qui permettent de comprendre ce qui autrement resterait informe.[40]

Deux coupes à figures rouges associent ce type de transport et la découpe sacrificielle ; la coupe de la Villa Giulia[41] montre un personnage levant sa *machaira*, accompagné de l'inscription *hiereus* ; les fragments de Florence[42] associent deux porteurs de viande à un porteur de *kanoun* et de panier plat ainsi qu'un officiant faisant libation à l'autel. Beaucoup plus souvent les peintres ont préféré montrer le transfert et la distribution de cette part de viande ; aucun élément ne désigne plus l'aire sacrificielle ou le sanctuaire, c'est avant tout le passage, la transmission qui importent et l'échange qu'implique ce sys-

[35] Durand 1979.
[36] Londres, British Museum B 362 ; *BAPD* 30320 ; Boston, Museum of Fine Arts 99.527 ; *BAPD* 303318.
[37] Paris, Musée du Louvre Cp 10918 ; *BAPD* 204812 ; Makron, *ARV*² 467/130 ; Ekroth 2013.
[38] Voir la contribution de Morton dans ce volume, *Chapitre 2*.
[39] Salerne, Museo Nazionale 158A ; *BAPD* 330716 ; peintre de Thésée, *ABV* 520/34.
[40] Ce choix, pour des raisons de lisibilité, est déjà noté par Tsoukala (2009, 33) ; cf. aussi Bundrick 2014, 676–677.
[41] Rome, Villa Giulia, sans n° ; *BAPD* 21316 ; Gilotta 1994 ; Gebauer 2002, 265–266, fig. 137.
[42] Florence, Museo Archeologico Etrusco 151589 ; *BAPD* 201290 ; peintre d'Epeleios, *ARV*² 146/3 ; Gebauer 2002, 300–302, fig. 167.

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tème de don, lié à la *charis*. Le détail du sabot importe, car il permet de repérer ce qui fait l'objet du don, et de situer cette distribution dans le domaine de la fête et du sacrifice.

Le détail du sabot n'est pas toujours si net, et les interprètes modernes ne l'ont pas toujours reconnu. On a parfois vu à la place de ce 'gigot mou' une bandelette,[43] un linge,[44] un étui à aulos[45] ou une outre à vin.[46] Sur une hydrie aujourd'hui disparue, mais publiée par Eduard Gerhard,[47] le dessinateur (ou le restaurateur ?) a cru voir un poisson. Il n'y a pas lieu de se moquer de ces erreurs : seule la série complète permet de comprendre de quoi il retourne. On saisit mieux l'importance du détail du sabot, qui lève toute ambiguïté. Le sabot est un signe qui opère comme indicateur du sacrifice, du partage et de l'échange.

L'ensemble de la série, près de 60 exemples,[48] montre la viande apportée par un jeune homme à un homme assis ou debout.[49] On la voit aussi circuler entre hommes et femmes,[50] avec toujours le geste du bras tendu en direction du destinataire. La part de viande entre ainsi dans le système des dons érotiques, à côté d'autres types de dons.[51] Parfois c'est un jeune homme au cerceau qui avance avec son gigot, évoquant la figure de Ganymède (*Fig. 6*).[52]

On comprend mieux aussi pourquoi Eros se fait porteur de viandes (*Fig. 7*),[53] et pourquoi les peintres ont souvent isolé la figure du porteur.[54] En ne retenant que le geste du passage, de la transmission, ils créent une figure métonymique de l'ensemble (tout comme en isolant le chien ils isolent un aspect du banquet). En focalisant sur cet aspect ils mettent en valeur la *charis*, sans détailler le statut des acteurs de l'échange. Victoria Tsoukala a montré que cette distribution des parts sacrificielles pouvait être mise en relation avec des honneurs civiques,[55] et propose de voir dans cette série une marque de l'identité civique, ce qui semble acceptable. Sheramy Bundrick a toutefois proposé de nuancer cette interprétation, en soulignant les changements dans le répertoire et le fait que tout sacrifice n'est pas exclusivement civique,[56] en quoi elle a raison. Les peintres de vases ne nous donnent guère d'indications sur le statut social des acteurs représentés. Seule l'inscription *hiereus* sur la coupe de la Villa Giulia[57] indique une fonction précise dans le rituel. Les images ne font pas de sociologie ; c'est nous qui en faisons, au prix d'inférences construites à partir d'une documentation extérieure aux images. Ce que les images font, c'est qu'elles privilégient la distribution, le geste de donner, la *charis* ainsi que le porteur de cette *charis* : Eros. Les peintres ont mis au point un signe non ambigu qui peut fonctionner à lui seul. La possibilité d'une telle métonymie est significative, et elle laisse au spectateur le soin de réinsérer la figure du don dans la pratique concrète où il se situe quand il utilise un tel vase.

Fig. 5. Salerne 158A; coupe, peintre de Thésée, vers 510 av. Photo : Musée de Salerno.

L'histoire du sabot ne s'arrête pas là ; trois autres vases, qui ne font pas série, ouvrent d'autres pistes. Il existe un vase à boire, à une anse verticale, du type « *mug* », en forme de sabot. La pièce est unique, et n'est pas attribuée, mais on peut la dater

[43] Ferrare, Museo Nazionale di Spina 2737 (T381) ; *BAPD* 207139 ; Copenhague, Nationalmuseet Chr. VIII 342; *CVA Copenhagen, Musée National* 4, pl. 157 : 5 (Danemark 4, pl. 159) et p. 121–122.
[44] Palerme, Museo Archeologico Regionale V661 ; *BAPD* 204135, texte *CVA Palermo, Museo Nazionale* 1, III Ic, p. 7–8 pour pl. 12 (Italia 14, pl. 669).
[45] Malibu, J. Paul Getty Museum 79.AE.174 ; *BAPD* 46987 ; non attribué.
[46] Bruxelles, Musées Royaux des Beaux-Arts A3097 ; *BAPD* 209594 ; rappelle le peintre de Penthésilée, *ARV*² 778.8 ; *CVA Brussels, Musées Royaux d'Art et d'Histoire (Cinquantenaire)* 3, III Id, pl. 17 : 3 (Belgique 3, pl. 132), texte p. 10. Voir aussi le texte, p. 14, du *CVA Chiusi, Museo Archeologico Nazionale* 2, pl. 27 : 1–4 (Italia 60, pl. 2669).
[47] Gerhard 1840, pl. 65 (Syracuse). Pour une interprétation délibérément anachronique de ce détail, voir Lissarrague 2017.
[48] On en trouvera la liste chez Tsoukala 2009, 16–30. Dans cette liste les n° 43 et 45 concernent le même vase. Voir aussi *Addenda* en *Annexe 2*.
[49] Tsoukala 2009, n° 1 à 17.
[50] Tsoukala 2009, n° 18 à 27.
[51] Koch-Harnack 1983, 129–142.
[52] Tsoukala 2009, n° 10 et 37 ; cf. aussi péliké Getty 79.AE.174 et le vase perdu publié par Gerhard (supra *note 47*).
[53] Tsoukala 2009, n° 43 à 49. Comme je l'ai noté ci-dessus (*note 48*), Tsoukala 2009, n° 43 et 45 (*BAPD* 10536 et 275326) sont un seul et même vase.
[54] Tsoukala 2009, n° 28 à 38.
[55] Tsoukala 2009, 36.
[56] Bundrick 2014, 676–677.
[57] Supra *note 41*.

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Fig. 6. Munich 2674; coupe, Makron, vers 480 av. © State Collections of Antiquities Munich. Photo: Renate Kühling.

Fig. 7. Palerme, collection privée ; lécythe, peintre de Bowdoin, vers 490 av. Dessin par François Lissarrague.

des environs de 480 av. (*Fig. 8*).[58] Le décor de la partie supérieure fait écho à cette forme rare. On y voit un berger assis, surveillant deux vaches, tandis qu'un chien-loup, derrière une sorte de grotte, ramène le troupeau vers le berger. La scène est purement descriptive, ne renvoie à aucun mythe particulier et forme, selon Himmelmann,[59] une des premières images « réalistes » dans l'art attique. Le bétail est ici vu dans l'espace campagnard, et connote une vision clairement bucolique de cet univers; mais en même temps le sabot, comme vase à boire, vient prendre place au banquet, là où les viandes, dûment sacrifiées, sont partagées et consommées. Les deux points les plus distants, de la campagne à la ville, sont ici conjoints sur ce vase surprenant.

Deux askoi portent également le motif du sabot. Sur l'un, à Naples (*Fig. 9*),[60] on voit un carquois, une tête de bovidé vue de face et un sabot en dessous. L'ensemble forme une sorte de rebus, sans aucune action, ni aucun acteur agissant. On peut penser à Héraclès à cause du carquois et de son appétit de *bouphagos*, mais il est difficile d'en faire la preuve et il faut sans doute se contenter, avec Herbert Hoffmann, d'y voir une représentation « énigmatique ».[61] C'est peut-être du reste à ce jeu d'énigme que le peintre a voulu se livrer en proposant une image ouverte, à interpréter au gré de l'imagination des utilisateurs.

L'autre askos propose un récit bouffon.[62] On y voit un satyre herculéen ; il porte sur le bras gauche une peau animale qui lui sert de bouclier, et brandit une massue à la façon du héros thébain. Dans cette posture de chasseur héroïque, il attaque un renard déjà pris dans un piège ; l'appât qui lui était tendu est précisément un sabot, probablement d'un bovin, une de ces parts de viandes données au chien, comme on l'a vu, et qui paraît fort délectable. Dans ce monde des satyres, le décalage entre chasse héroïque et petit gibier crée un effet comique qui ne relève pas forcément du drame satyrique,[63] mais qui, là encore, a dû amuser les banqueteurs en les introduisant

[58] New York, Metropolitan Museum of Art 38.11.2 ; *BAPD* 5968 ; « *recalls Brygos Painter* ». Richter 1939.
[59] Himmelmann 1980, 53–54 et pl. 12–13.
[60] Naples, Museo Archeologico Nazionale H3060 ; Hoffmann 1977, catalogue : R5.
[61] Hoffmann 1977, 14.
[62] Oxford, Ashmolean Museum V539 ; *BAPD* 5746 ; non attribué ; *CVA Oxford, Ashmolean Museum* 1, pl. 45 : 1 (Great Britain 3, pl. 137); Hoffmann 1977, catalogue : Df1.
[63] Lissarrague 2013, 122.

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Fig. 8. New York 38.11.2, coupe plastique, 'mild Brygan' (J. R. Guy), vers 480 av. © The Metropolitan Museum of Art/Art Resource/Scala, Florence.

Fig. 9. Naples H3060; askos, non attribué, vers 430 av. Photo : Museo Archeologico Nazionale, Naple.

dans le monde de la fable, où le renard n'est pas toujours aussi rusé qu'il le croit.

La logique du signe que constitue le sabot, dans ces trois images hors série, relie l'élevage, le sacrifice et la chasse. Elle nous a conduit des figures noires au figures rouges, du 6e au 5e s., dans un univers où un simple élément anatomique prend une série de valeurs précises concernant le rapport entre l'homme et l'animal, entre les hommes et les dieux. Cet élément anatomique n'est pas anecdotique ; à la façon des astragales, il ouvre sur des pratiques sociales complexes et inscrit très concrètement dans la matérialité anatomique du squelette animal les valeurs symboliques de la société qui en produit l'image.

FRANÇOIS LISSARRAGUE
École des hautes études en sciences sociales, Paris

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Figures noires				
Musée	**Forme**	**Référence *BAPD***	**Attribution**	**Motif**
Samos K1280	coupe	*BAPD* 300305	p. KX	banquet
Bochum S1104	amphore	*BAPD* 9019202	gr. Tyrrhénien	banquet
Londres B46	dinos	*BAPD* 300850	gr. Atalanta	banquet
Embirikos	psykter	*BAPD* 718	p. Achéloos	banquet
Tarente	cratère à volutes	*BAPD* 302866	p. Achéloos	banquet
Bâle BS2405	amphore pointue	*BAPD* 9048339	p. Achéloos	banquet
Dunedin 48.226	péliké	*BAPD* 302889	p. Achéloos	bèma
Berlin F1900	hydrie	*BAPD* 302872	p. Achéloos	jeune homme taureaux
Amsterdam	péliké	*BAPD* 9030211	manière p. Achéloos	comos
Bâle Cahn HC866	olpè	*BAPD* 302330	gr. Léagros	banquet Dionysos
Londres BM B178	amphore B	*BAPD* 302996	p. Eucharidès	départ
Bâle MuM 56 :73	hydrie	*BAPD* 640	non attribué	départ cavalier
Munich 1727	hydrie	*BAPD* 303002	p. Eucharidès	statue d'Athena
Bâle Market	stamnos	*BAPD* 3886	p. Michigan	banquet au sol
Hambourg market	amphore à col	*BAPD* 5723	p. Antiménès	banquet
New York 41.162.189	amphore à col	*BAPD* 303058	p. Kléophradès	départ hoplite
Cambridge 27.1864	amphore à col	*BAPD* 302249	p. Lysippides	banquet Dionysos
Madrid 10916	amphore A	*BAPD* 305509	p. Sappho	banquet Héraclès
Munich 2082	coupe	*BAPD* 340229	gr. Krokotos	banquet
Francfort KH 5702	coupe	*BAPD* 12608	non attribué	isolé/yeux
Yale 1913.127	plat	*BAPD* 8546	non attribué	isolé/Dionysos
Londres market	hydrie	*BAPD* 41556	non attribué	Nike
Heidelberg 253	olpe	*BAPD* 10598	non attribué	découpe
Essen	olpe	*BAPD* 330144	gr. Dot Ivy	banquet
Figures rouges :				
Paris BN 585	coupe	*BAPD* 203926	p. de Brygos	banquet

Annexe 1 : Chien rongeant une patte. Abréviations : p. = Peintre ; gr. = Groupe

Musée	**Forme**	**Référence *BAPD***	**Attribution**
Getty 79.AE.174	péliké	*BAPD* 46987	non attribué
Bruxelles A3097	péliké	*BAPD* 209594	p. Londres E356, *ARV²* 778/8
Boston 03.815	coupe	*BAPD* 211708	p. de Penthésilée, *ARV²* 887/145
Mt Holyoke 1932.5.B.SII	pyxis	*BAPD* 212035	p. de Veii, *ARV²* 906/109
Chiusi C1835	coupe	*BAPD* 211270	p. Bruxelles 330, *ARV²* 938/14
Braunschweig 548	coupe fragment	*BAPD* 213003	p. de Londres E12, *ARV²* 959/8
Athènes Benaki 31116	coupe	*BAPD* 9029985	Penthesilean (Sabetai)
Marzabotto 353	cratère colonnette	*BAPD* 214728	p. d'Héphaïstos, *ARV²* 1114/3
Voir aussi :			
Ferrare 9355 (cuissot complet)	cratère à volutes	*BAPD* 206942	p. des Niobides, *ARV²* 600/14
Ex Getty 85.AE.36 (Phineus)	hydrie	*BAPD* 30369	p. de Kléophradès

Annexe 2 : Addenda à la liste de Tsoukala (2009).

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MICHAEL MACKINNON

5. Animal heads and feet in ancient Greek ritual contexts

Their relationship between sacred and profane

Abstract

Although traditional demarcations for sacrificial faunal remains among ancient Greek sites—(i) altar offerings; (ii) consumption debris; (iii) butchery refuse—provide a basis for study, the reality is not always so simple. This chapter re-examines the representation of heads and feet within zooarchaeological data for Greek ritual sites in light of the cultural and natural biases that can affect these samples. Attention here focuses upon aspects including (1) taphonomic factors shaping assemblage formation; (2) the association of heads and feet with an animal's hide, and, in turn, the role of the hide in ritual operations; (3) the relationship between holocaust sacrifice and expected representation of heads and feet; (4) consumption of heads and feet in feasting; (5) symbolism (whether expressed or not) surrounding the use, display or role of animal heads and feet in antiquity. Where possible, comparisons are made with the evidence for heads and feet among non-ritual zooarchaeological assemblages in Greek antiquity to provide a wider context for their distribution among ritual sites and to explore further the relationship between sacred and profane in this respect.*

Keywords: Greek animal sacrifice, zooarchaeology, taphonomy, cattle, sheep/goat, pig, head, feet, hide, bone assemblage, altar, consumption, feasting, butchery refuse/debris

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Introduction

Traditional divisions ascribe zooarchaeological remains recovered from ancient Greek ritual contexts into categories linked with (i) altar offerings (i.e., often the materials burnt for the gods or heroes venerated); (ii) consumption debris (i.e., materials correlated with ritual dining and feasting at such events), and (iii) butchery refuse (i.e., materials associated with the initial preparation of the animal carcasses for offering and consumption). These components help provide a broad basis for understanding the wider processes and operational sequences of animal sacrifice. Nevertheless, as Gunnel Ekroth notes,[1] the reality within such sacrifices does not always fit neatly into generalized patterns which might be anticipated or expected, and caution is thus warranted. As in greater archaeological practice, sometimes it is tempting, or convenient, to ascribe cultural characteristics to an assemblage of materials on the basis of where it was recovered. Thus, materials found in a domestic context are surmised to relate to domestic activities; materials recovered from a cemetery are linked with funerary activities; materials associated with a sanctuary correlate to ritual events or contexts. Aspects of interest can be further developed by drawing upon social parameters and concepts within reconstructions: e.g., materials from a "high status" site are tied to high status activities; those from "lower status" sites become exemplary of a lower level of social distinction. Although it can certainly be the case that recovered archaeological artifacts link fairly directly to assumed activities and social categories as understood through spatial and contextual assignment of such materials, this is not a given. Repeated episodes of non-critical assessment and relatively basic or simplistic extrapolation between where materials are recovered and their assumed role can run the risk of creating long-standing platforms of problematic tautologies.

The purpose of the current chapter is to re-examine some of these purported connections by exploring patterns in zooarchaeological materials from sites of Greek antiquity. The available database of such faunal remains, as collected from

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[1] Ekroth 2009, 35.

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both ritual (i.e. temple, sanctuary, and altar contexts) and non-ritual (i.e. **not** temple, sanctuary, and altar contexts) sites, forms the basis of investigation. Note, however, that the terms "ritual" and "non-ritual" are themselves constructs scholars have placed upon sites, which through such labelling may *a priori* lure us to label materials recovered from these places under the same heading provided for the site or its context.[2] The intention in this chapter is to demonstrate that such a path of investigation and reconstruction is difficult to traverse. The ritual/non-ritual continuum is malleable, unfixed, and ambiguous. Such a statement may not seem revolutionary, and has been asserted already,[3] but it is important to stress it, and to illustrate its merits, in an environment where the enticement to ascribe something in more concrete, fixed, and unambiguous terms may be favoured or prioritized. Accordingly, shades of grey in an argument (in other words, the murky "middle ground") may prove far more helpful as a measure of human behaviour and practice than might a fixation on the extremes of black and white (that is, the more concrete endpoints), even if, by comparison, this "grey-zone" itself may run the risk of being indecisive, dull, and mundane.

The study of heads and feet among ancient Greek faunal assemblages

Evidence for sacrifice of animal parts, such as the thigh and tail, registers fairly distinctly among several ancient Greek ritual sites.[4] Correlations these parts share with recovered zooarchaeological remains such as the femur, pelvis, sacrum, and caudal vertebrae have similarly been explored,[5] as has the relationship between left and right sides in the choice of such elements.[6] The situation with faunal remains associated with the head and feet of sacrificed animals, however, remains less securely investigated, given that these components may, depending upon the circumstances, cut across the various categories outlined above: altar offerings, consumption debris, butchery refuse.[7] For instance, one might expect these elements (at least the heads) to be charred on the altar in the case of a holocaust sacrifice,[8] but is such an assumption always justified? Similarly, when might butchery and/or consumption debris incorporate elements from heads and feet, and when might this not be the case? Re-examining the representation of heads and feet among zooarchaeological data for Greek ritual sites, in light of the cultural and natural biases that can affect these assemblages and their subsequent interpretation, is necessary, and will help shape some of the arguments presented here. Attention within the current study focuses upon (1) taphonomic factors shaping assemblage formation; (2) the association of heads and feet with an animal's hide, and, in turn, the role of the hide in ritual operations; (3) the relationship between holocaust sacrifice and the expected representation of heads and feet in faunal assemblages; (4) consumption of materials associated with head and feet in ritual feasting; (5) symbolism (whether expressed or not) that might surround the use, display or role of animal heads and feet in antiquity. Where possible, comparisons will be made with the evidence for heads and feet among non-ritual zooarchaeological assemblages in Greek antiquity to provide a wider context for the distribution of these skeletal elements among ritual sites and to explore further the relationship between sacred and profane aspects in this respect. Nonetheless, given the concerns addressed above, caution is warranted in *a priori* ascribing a fixed division between ritual and non-ritual components, at least as regards our investigations of recovered archaeological materials from ancient sites.

In exploring such aspects, this study will draw upon data for skeletal parts among zooarchaeological assemblages—that is, percentages of heads, teeth, limbs, ribs, vertebrae, feet, etc., tabulated for the various taxa. This information will be pre-

[2] Given this concern, the use of the terms "ritual" and "non-ritual" within this chapter should be offset with quotation marks, to contextualize their non-fixed nature. To avoid repetitive use of such quotations within the body of the text for this chapter, however, I shall avoid this configuration, and leave the assumption that such is the case.

[3] For a general introduction to these complexities, as they relate to Greek antiquity more particularly, see Eidinow & Kindt 2015, notably the chapters under 'Part I: What is ancient Greek religion'. For wider discussions of the multiple theoretical stances developed and explored in the assessment of ancient Greek rituals and animal sacrifice, see e.g. Detienne & Vernant 1989; Graf 2012; Naiden 2013.

[4] For general syntheses of these aspects and examples from various sites (alongside further references) see Ekroth 2008a; 2008b; 2009; 2011; 2013a; 2013b; 2014; 2016; 2017a; 2017b.

[5] Cf. e.g. publications by Ekroth listed in the previous footnote; Hägg 1998; Hitch 2015; Scullion 2013; Trantalidou 2013.

[6] MacKinnon 2010; 2013, with an example of this from the site of Nemea.

[7] Ekroth 2007, 266–268; 2009, 134–142, detail the components of interest among altar deposits, consumption debris, and butchery refuse, more clearly with regard to Greek sacrificial assemblages. Essentially, the central criteria to consult include the types of bones, the degree of fragmentation, the presence and location of cut and chop marks, and whether the bones are burnt or not. Nevertheless, divisions are not always clear among assemblages, in turn necessitating more detailed, individual studies of various faunal deposits, as well as more cross-site comparisons (as this chapter attempts). Moreover, as faunal remains are subject to a range of taphonomic factors, which in turn can shape the assemblages retrieved (and the ultimate patterns drawn), these biases must also be considered.

[8] Even if a holocaust sacrifice involved some measure of chopping up the animal and removing its hide, as Scullion 2009 argues, at least the heads should register within this scenario; the feet are more likely to have been removed with the hide in this case. For the practical execution of holocausts, see also the contribution by Ekroth in this volume, *Chapter 12*.

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sented in the form of various graphs that display these variables for the three principal domesticate taxa found at ancient Greek sites—cattle, sheep/goat, and pig.[9] Immediately, it is important to signal potential biases. First, most zooarchaeological reports publish statistics for the frequency of these three animal taxa among sites, but not all provide a breakdown by skeletal part. Thus, the overall frequency (typically by NISP %)[10] of cattle, sheep/goat, pig, etc., is available, but not proportions by skeletal element within each taxon. The latter statistics are truly instrumental when parts of an animal carcass (and its skeleton) can undergo different selective choices (e.g. "I'd like the prime rib and not the ham hock"), or can be subject to different input and output steps along a production/consumption continuum (e.g. "chop the heads off first, and put them here; then remove the feet and send them there; then disarticulate the joints, then fillet the meat, etc."). Increasingly, it is these nuanced aspects of the skeletal parts that are critical to report, perhaps even more so, one might argue, than overall frequencies of animal taxa. Nevertheless, in this current overview, only those sites or cases where clear data about all skeletal elements of interest were provided can be used—thus, at this stage, some key sites, such as Delos, as well as some selected deposits among other sites, such as Isthmia and Ephesos (notably the Artemision assemblages among the latter site), have to be excluded from aspects of the current study.[11]

A second concern centers upon representational variance among elements. Put simply, some elements, such as teeth and limb bones can more easily be identified as belonging to cattle, sheep/goat or pig, while other elements, such as ribs and vertebrae are not always readily distinguished, and may not be reported by particular animal (or at all in NISP counts).[12] This disproportionate treatment for skeletal elements creates problems should one desire a more balanced zooarchaeological assessment of the role of all parts of an animal's body. In large measure, under-reporting of ribs and vertebrae among faunal assemblages can often lead to the neglect of these skeletal elements within larger arguments and reconstructions of activities and procedures for a site. Some zooarchaeological reports tally rib and vertebrae counts under larger groupings on the basis of an animal's size (e.g. "large-mammal ribs", "medium-mammal vertebrae"), but correlating these more general classes and their statistics to specific ones reported through NISP counts by any individual or "non-aggregate" category, or by designation of animal or skeletal element, is problematic. Consequently, drafting firm conclusions about relative frequencies of ribs and vertebrae across faunal assemblages, on the basis of the limited data available for those components, is currently a challenging venture.

A final worry among reports of skeletal element data involves taphonomic, survival, and recovery biases for faunal assemblages. Among the various parts of an animal's skeleton, teeth are durable and survive well archaeologically. Similarly, denser bones and bone sections, such as phalanges, metapodials, distal ends of tibiae, etc., often have higher probabilities of survival.[13] Moreover, larger, conspicuous pieces and elements register a greater likelihood of retrieval than smaller bits. This discrepancy is minimized when employing screens or other enhanced recovery methods. Zooarchaeologists are well aware of these biases and of the degree of variation within them that can exist across sites.[14] Consequently, in exploring trends within the datasets used in this current chapter, various attempts to standardize or correct some of these taphonomic and recovery biases may be initiated, in a quest to estimate what might be more absolute figures or frequencies for the various skeletal parts being considered. Nonetheless, even if such biases are not completely addressed or standardized, the fact that most of these concerns may, to some degree, conceivably be levied across all sites sets up a precedent whereby sites can be compared on a relative scale, even if their absolute figures may be more a factor of taphonomic, recovery, and retrieval biases than representative of cultural behaviours. In other words, there is less of an interest in this current investigation in the absolute numbers (i.e. 20%, 30%, 40% etc.) for whichever particular category is being considered, so much as a greater emphasis upon more general comparisons among sites (e.g. "this site registers more of this element than that site") and on the reasons why any patterns observed might exist.

[9] These taxa generally account for more than 90% of the faunal remains recovered from Greek ritual sites. They similarly dominate at non-ritual sites. For the investigation of osteological evidence for the role and use of other taxa (including wild fauna, dogs, equids, exotics, reptiles, amphibians, and fish) among Greek sacrificial sites, see Ekroth 2007, 256–260; 2014, 339–342; Mylona 2008; 2013; Theodoropoulou 2013. Additionally, note that the term "sheep/goat" is commonly employed in the zooarchaeological literature, and will be used throughout this chapter to denote the collective grouping of this taxon.

[10] NISP = Number of Identified Specimens; or more generally a count of the number of faunal elements that can be ascribed to a particular animal or taxonomic group. NISP is a common quantification measure used in zooarchaeological practice; refer to Reitz & Wing 2008 for further discussion of the concept.

[11] For reports about these sites, see the following: Delos: Prost 1997; Brun & Leguilloux 2013. Isthmia: Gebhard & Dickie 1999; Gebhard & Reese 2005. Ephesos: Bammer *et al.* 1978; Forstenpointner 2001; 2003; Forstenpointner *et al.* 1999; 2005; 2008.

[12] These concerns are detailed, more completely, in Driver 1991; 2011.

[13] Bone density is also linked with factors such as an animal's age, and stage of tissue development. Younger, immature bone tends not to survive as well as older, mature bone. This presents a further level of bias to consider when reviewing overall patterns for skeletal parts.

[14] Lyman 1994 remains a seminal publication about taphonomy and its effects within zooarchaeological studies.

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Table 1. Sites, dates/period and references for zooarchaeological samples considered (or otherwise noted) in this chapter (arranged alphabetically by site).

Site	Dates/Period	Reference
Amathous	Archaic (7th–6th centuries BC)	Columeau 1996; Gardeisen 2006
Asine	Helladic to Geometric	Moberg 1992; Moberg Nilsson 1996
Delos	2nd century BC	Prost 1997
Didyma	Roman (2nd century AD)	Boessneck & von den Driesch 1983; Boessneck & Schäffer 1986; Klapper 1994
Eleutherna	Hellenistic (3rd–1st centuries BC)	Vila 1994
Ephesos	Archaic to Hellenistic/Roman	Bammer 1998; Bammer *et al*. 1978; Forstenpointner 2001; 2003; Forstenpointner *et al*. 1999; 2005; 2008
Eretria	Geometric	Chenal-Velarde 2001; Chenal-Velarde & Studer 2003; Huber & Méniel 2013; Studer & Chenal-Velarde 2003
Heraklea	Archaic/Hellenistic	Forstenpointner *et al.* 2010
Isthmia	Iron Age to Archaic	Gebhard & Dickie 1999; Gebhard & Reese 2005
Kalapodi	Archaic to Late Classical (6th–3rd centuries BC)	Stanzel 1991
Kourion	8th–6th centuries BC	Davis 1996
Lerna	Helladic (largely)	Gejvall 1969
Miletos	Archaic (7th–5th centuries BC)	Peters 1993; Peters & von den Driesch 1992
Mytilene	Archaic to Hellenistic	Ruscillo 1993; 1997; 2013
Nemea	Archaic	MacKinnon 2013; 2018
New Halos	Hellenistic	Prummel 2003
Nichoria	Middle Helladic to Iron Age	Sloan & Duncan 1978
Olympia	Late Archaic	Benecke 2006
Oropos	Iron Age (8th–6th centuries BC)	Trantalidou 2007
Plakari-Karystos	Geometric to Archaic (10th–6th centuries BC)	Groot 2014
Tegea	Geometric	Vila 2000; 2014
Tenos	3rd–2nd centuries BC	Leguilloux 1999
Thasos	6th–4th centuries BC	Bergquist 1998; des Courtilis *et al*. 1996
Thebes	Classical to Roman	Boessneck 1973
Thera	Hellenistic to Roman	Becker 1997
Tiryns	Helladic to Mycenaean	von den Driesch & Boessneck 1990
Troy	Bronze Age to Roman	Fabiš 1996; 1999; 2002

Patterns within the data

The locations of the sites comprising the database of investigation for this assessment are shown in *Fig. 1*; associated date ranges/periods for the faunal assemblages consulted, as well as the references for each assemblage, are listed in *Table 1*. Note that since this current study focuses upon variation among parts of the skeleton between ritual and non-ritual sites of Greek antiquity, the list of sites is restricted to those that report such zooarchaeological data in a clear and relatively standardized fashion. Among the zooarchaeological literature for various sites, other cases exist where mention of a preponderance of some skeletal part is made, but without this aspect enumerated in NISP counts (and thus quantified in more direct counts, as opposed to more generic terms such as "much", "a majority", etc.), such examples must be omitted from the current synthesis. Sites are pooled across a wide timeframe, with representatives from Bronze Age/Helladic contexts through to early Roman times. The bulk of the sites, however, date to somewhere in the 1st millennium BC, roughly Archaic, Classical and Hellenistic times.[15] Although this timeframe of 1,000 years, more or less, is relatively broad and includes various cultural phases, my intention in this current investigation is not to dissect strictly any temporal variation through the different periods/phases considered here, but rather to seek a general overview of sacrificial practice within the wider temporal scope indicated. Moreover, I am fully aware that different gods and heroes may have been venerated at different sites, and that the sacrificial assemblages, as regards species and parts selected at each, may vary.[16] Never-

[15] In narrowing the timeframe for this current study, Bronze Age sites were generally excluded. Halstead & Isaakidou 2017 provide a comprehensive list of Neolithic and Bronze Age faunal samples from Greece, with further discussion of the information these assemblages can provide (including ritual aspects), alongside further references.

[16] Kadletz 1976 collects and tabulates the ancient references connected with sacrifice to various deities in Greek and Roman religion, summariz-

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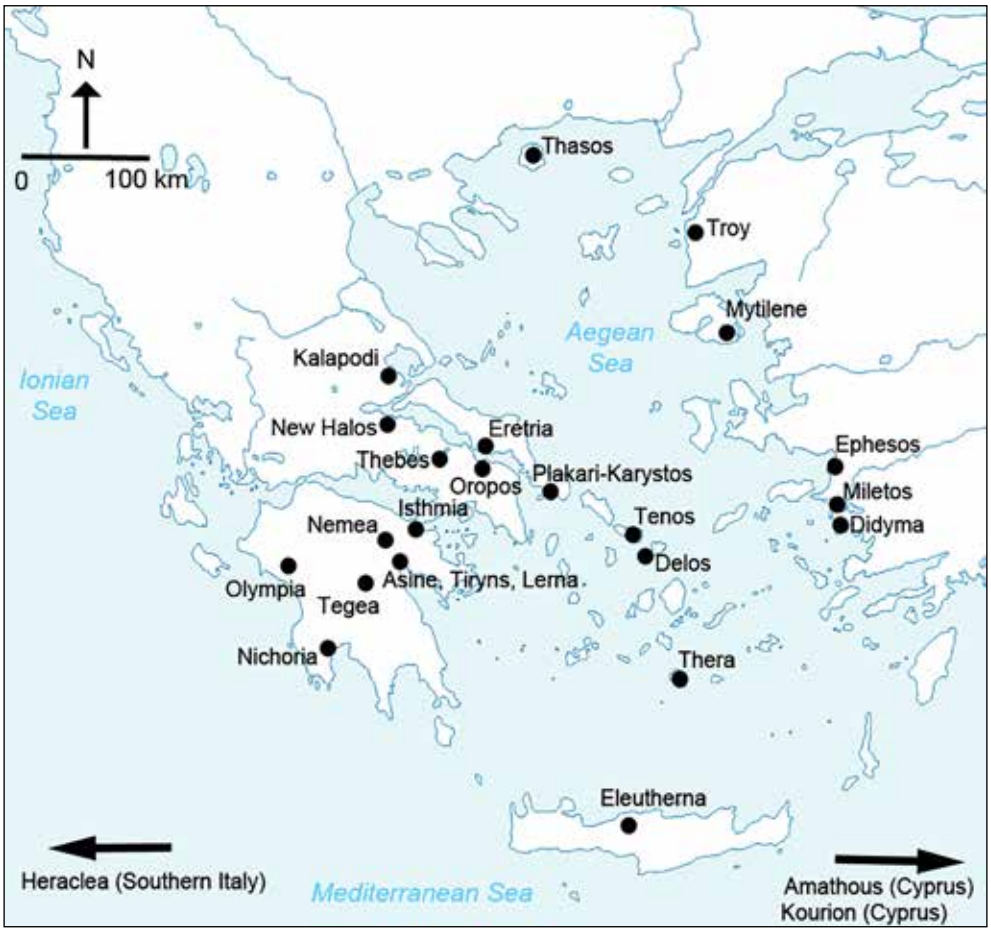

Fig. 1. Location of sites providing zooarchaeological samples, which are considered in this chapter. Map: Michael MacKinnon.

theless, at this initial exploratory stage of investigation, my overall goal is to pool sites into larger collective groups to determine broad patterns, notably as regards the range and frequency of skeletal parts. Thus, we may ask: do ritual and non-ritual sites really differ in what skeletal elements they register? Do they differ especially with regard to the representation of heads and feet? Three general categories of material are employed for this investigation, deriving from two types of sites: (1) burnt materials from ritual sites; (2) unburnt materials from ritual sites, and (3) unburnt materials from non-ritual sites.[17] Ritual sites include temples, sanctuaries, altars, and the like; non-ritual chiefly encompasses domestic contexts. As noted already, dichotomous ritual and non-ritual labeling is problematic, but at this stage, such designations at least set a basis for preliminary, general comparisons. Geographically, most of the sites examined are located in central and southern Greece, but a few are provided from areas in the Aegean, Turkey, and southern Italy in order to augment samples.

ing much of these within lists and tables that specify the types of animals accepted for each god. Ekroth 2002 supplies a comprehensive assessment of hero-cults in Greek antiquity, from the vantage of both literary and archaeological evidence. In addition to the individual site reports, the connection of god, hero, skeletal part, etc., as regards sacrifice in Greek antiquity is variously outlined in Ekroth 2007; 2008a; 2008b; 2009; 2011; 2013a; 2013b; 2014; 2016; 2017a; 2017b. A table summarizing many of these aspects is provided in MacKinnon 2018.

[17] Burnt materials from ritual sites, in such cases, relate predominantly to carbonized and calcined bones that are presumably associated with sacrificial/temple/altar offerings. Burnt remains are occasionally noted from non-ritual sites, but the degree of burning for these is neither of the intensity nor quantity exhibited for burnt (altar/sacrificial) materials from ritual sites. More specifically, among these non-ritual contexts: (i) calcination is rarely, if ever, noted; (ii) carbonization, when expressed, is typically linked with charring of the ends of bones, a pattern often linked to the exposure of these parts to an open flame during cooking. Thus, while some burnt bones (probably burnt through cooking operations) register at non-ritual sites, their frequency, expression, and placement upon individual elements, and nature of burning overall cannot be compared reliably against burnt sacrificial faunal samples from ritual sites.

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Cattle

Fig. 2 displays the relative NISP frequencies for a range of skeletal-part categories (including ribs and vertebrae) for cattle, across the various sites under consideration. Non-ritual sites are listed at the bottom of the graph; ritual ones are at the top. Among ritual sites, "RU" records unburnt, and "RB" stands for burnt assemblages. The sites are arranged (moving from top to bottom within each group noted above) in terms of descending frequency of the "head + teeth" category. A general assessment of the graph shows no particular trend between ritual and non-ritual categories overall; nor is there any marked separation between burnt and unburnt examples among the ritual category itself. Ritual sites at Amathous and Tegea, for example, display patterns almost identical to non-ritual contexts indicated for Eleutherna and Oropos—all with a marked predominance of "head + teeth" remains, and very few ribs or vertebrae noted. The traditional explanation for this discovery invokes arguments for specialized deposits of the head as a waste component, or as a first product removed in carcass processing, with the "meatier" ribs and vertebrae dined upon elsewhere.[18] That argument seems sensible, but such an activity here cuts across both ritual and non-ritual contexts. This, in turn, questions the value of demarcating Tegea and Amathous as ritual contexts with regard to patterns within the cattle faunal remains recovered, except for the connection with a sanctuary (i.e. the context of their recovery) which leads to the assumption that these materials constituted waste from some type of "ritual meal". Although all animals eaten within sanctuaries need not necessarily be sacrificial victims, the case above outlines some of the complexities in trying to dissect distinct ritual/non-ritual dichotomies in the representation of faunal patterns. Similarly, non-ritual New Halos exhibits a comparable trend to ritual Heraklea, among other sites: both display a predominance of fore- and hind-limb cattle elements. Certainly, in the case of burnt materials from ritual sites, a firmer argument of an association with ritual events might be forwarded—as these contexts might incorporate aspects such as *thysia* and holocaust sacrifice, procedures where burning is typically necessary in the ritual event.[19] However, unburnt ritual assemblages, often assessed as processing or dining debris from ritual events, can be no different in their skeletal-part distributions than non-ritual assemblages. This then invokes two questions: (1) should these assemblages be ritualized simply because of their context (which itself may not be outlined clearly in any site report beyond the mention of "fill/material" from a ritual site);[20] (2) should non-ritual sites be assessed differently?

Notwithstanding these issues, mean values for the ritual and non-ritual components of cattle, as a whole, are displayed in the central portion of *Fig. 2*. Admittedly, one should be cautious here, since the calculation of statistical means by nature homogenizes variability among assemblages. Despite these concerns, however, as a general guide, the trends displayed by the mean values for the various skeletal-part categories for cattle between ritual and non-ritual sites are very close, thus accentuating some of the intrinsic problems in crafting ritual/non-ritual dichotomies. Overall, cattle heads and feet register with slightly greater frequency among non-ritual sites than among ritual ones. This suggests that ritual contexts may have exported more cattle heads and feet (or at least the associated bones within these regions), on a relative scale. Given that these skeletal parts are often byproducts of the initial division of the animal, when it was skinned and prior to the extraction of parts later designated as altar debris or sacrificial cooking debris from the ritual event, it seems natural that these heads and feet, as butchering debris, might be treated separately and eventually removed from the area, perhaps even to non-ritual contexts.[21] When removing the hide of an animal, one generally either initially or ultimately cuts at the lower ends of the limbs, often in the region of the metapodials and phalanges. From this juncture, one can peel back the hide, cutting and lifting the layer between the underlying muscles and fat as one progresses over the entire skeleton. As it is difficult to fidget with separating the hide in the area around the metapodials and phalanges, workers are known to initially retain these bones within the hide, leaving the tanners and hide processors to extract them later. In fact, leatherworkers might have kept these bones within the hide until the later stages of tanning, since the weight of the bone can help stretch and stabilize the hide. Little meat surrounds the metapodials and phalanges, so

[18] Ekroth 2016, 37–38.

[19] In many cases remains of burnt sacrifices are recovered within fills, dumps, or deposits at a sanctuary or near an altar, often in fairly homogeneous states, that is, with the entire collection of bones displaying signs of burning, and often with materials calcined and as a result fragmented into small, brittle pieces. Nonetheless, this need not be uniform; cases exist where remains of burnt sacrifices are found mixed with unburnt bones as well. See Ekroth 2009 and MacKinnon 2013; 2018, among others, for further discussion.

[20] This point about the nature of the deposit is critical and presupposes an integrated investigation and correlation of the character/nature/taphonomic history of all finds within a deposit, not to mention a thorough understanding of the geological, cultural, and natural circumstances that affected the creation and subsequent taphonomic history of that deposit. In many cases, this level of detail is not assessed or reported.

[21] It is worth mentioning here that bones from cattle feet and lower legs were extremely under-represented among faunal materials collected at the 4th-century BC Altar of Zeus/Jovis at Poseidonia, Italy, where they accounted for less than one percent of bones retrieved. The impression here is that these materials were removed from this "ritual" region and presumably deposited outside the area. See Leguilloux 2000 for further details. Unfortunately, full NISP statistics for all categories of skeletal parts from this site were unavailable in order to include it in this current study.

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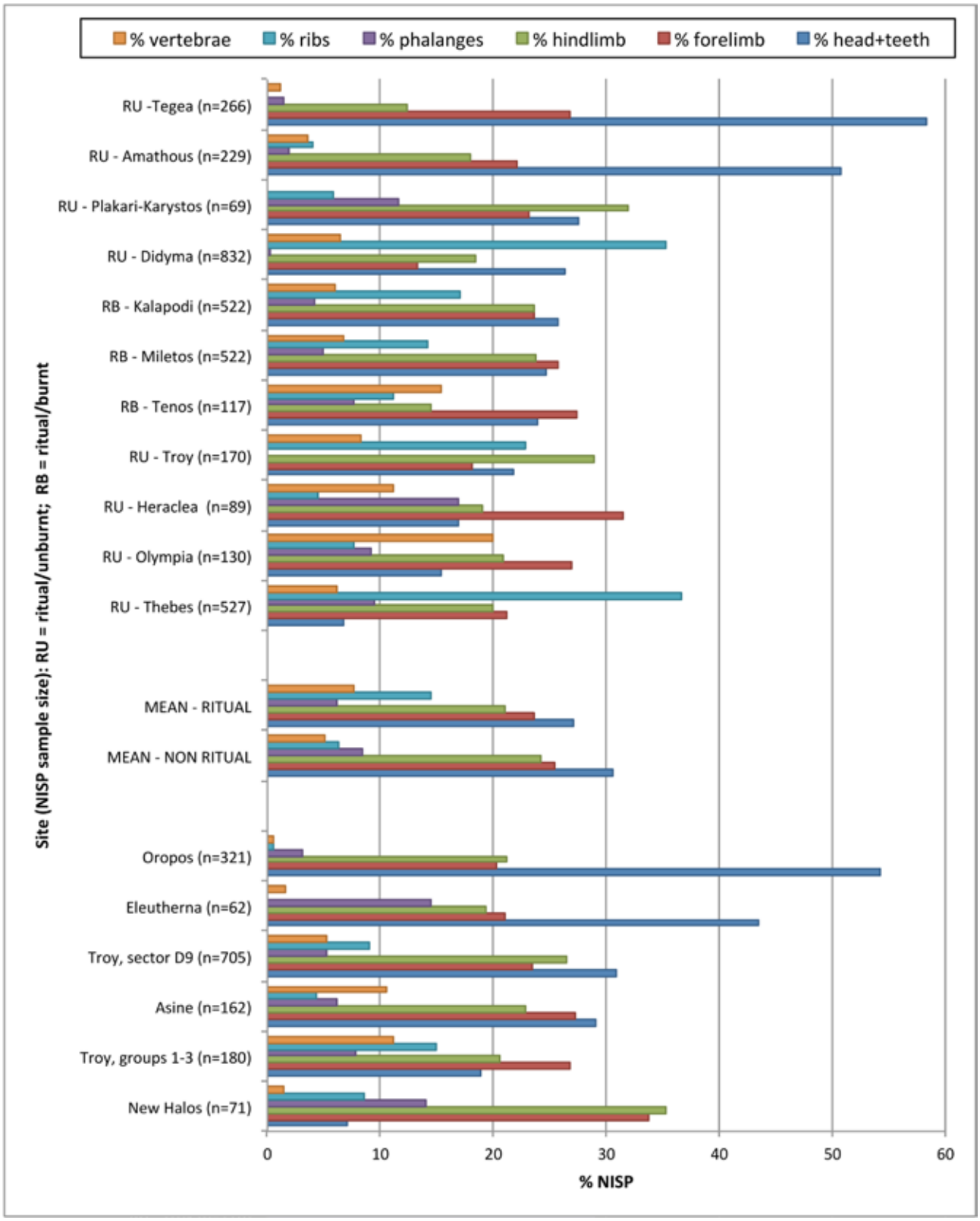

Fig. 2. Cattle: NISP frequencies for six skeletal-part categories (vertebrae, ribs, phalanges, hindlimb, forelimb, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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there is typically no great demand for reserving these bones for the butcher.[22] The head may also be retained in the hide, which could help explain why cranial fragments (and especially teeth, the most durable of all skeletal elements, and frequently the most numerous component in the "head + teeth" category outlined here) are not as prevalent among ritual sites in Greek antiquity as compared to non-ritual sites. Along with the metapodials and phalanges, the heads may have been removed from ritual areas and delivered subsequently to tanners and hide processors while these elements still remained with the hide.

Conversely, to achieve this same pattern of cattle heads and feet registering with greater frequency within non-ritual as opposed to ritual contexts for ancient Greek sites, one might also argue the possibility that non-ritual sites exported select non-head and foot parts (i.e. limbs and torsos), to send to ritual sites, but this scenario seems unlikely given that values for forelimbs and hindlimbs within *Fig. 2* are fairly equivalent between site types, thus implying no marked movement of these parts between ritual and non-ritual contexts.[23] Generally, the impression is that the heads and feet of the animals in question were retained within the hides, or otherwise represent the unimportant butchery refuse left over in the quest to extract the select parts either to burn on the altar or to consume as part of the ritual feast.[24] Fairly abundant and rather widespread evidence exists among ritual contexts for officiating priests claiming animal hides as perquisites.[25] Moreover, there are references to the sale of hides from sacrificial victims,[26] and thus, the potential for these parts to move between ritual and non-ritual settings.

Although zooarchaeological evidence tends to support some measure of exporting hides (with head and feet attached) from Greek ritual sites to other contexts, hides/skins (with parts of the head and feet) can also sometimes be brought into sanctuaries, although arguably it seems the latter possibility was less prominent. Generally, these materials fall within a larger category of individual gifts to the gods, as votive offerings. The skeletal elements in association might be specifically selected, such as in the case of gifts of antlers, horns, heads, claws or teeth. Alternatively, the head and foot bones of interest here might be attached (either deliberately or inadvertently) to the gifts of skins or hides. In this case, any head or foot bones contained may have been removed from their accompanying hides/skins while being processed within the sanctuary, and eventually, perhaps deposited along with other faunal materials collected or produced within that setting.[27]

The relationship between hide processing (incorporating activities such as tanning, leather working, etc.) and ritual/non-ritual spaces in Greek antiquity remains underexplored. Few definitive examples of tannery complexes are noted for Greek antiquity, at least when compared to those for Roman contexts, where far more evidence, from textual, archaeological and zooarchaeological sources, is noted.[28] It is unlikely that any type of hide, even a single small piece, was fully worked and processed within sanctuary settings in Greek antiquity; almost certainly such activities were conducted outside these areas. Practical issues associated with limited space, foul smells, and access to adequate water and other materials necessary for tanning no doubt inhibited such operations within a sanctuary, and may even have curtailed their operation in the vicinity of such ritual spaces. Indeed, legislation prohibited the tanning of hides above the sanctuary of Herakles on the Ilissos in Athens, likely a measure to restrict any dirty water and chemicals that might be associated with those activities from polluting the sanctuary.[29]

Exploring more of *Fig. 2*, it can be noted that ritual sites, on average, yield slightly higher frequency values for cattle ribs

[22] MacKinnon 2004, 177–184.

[23] Given the ceremonial aspects (which involved components such as anointing the animal victim, slitting its throat, collecting blood, etc.) the assumption has typically been that live animals were brought to the altar to be sacrificed in Greek antiquity. This would result in processing of an entire animal, with all its component skeletal parts (and selection of these as altar waste, dining waste, and butchery waste) within that setting. Nevertheless, however remote it might seem, the possibility exists that some animal parts correlating with *thysia* sacrifice may have been processed outside ritual sites and subsequently imported to them. The assumption is that this was taboo (as assurance of proper sacrificial status and procedure might be placed in question); but the issue warrants greater scrutiny, overall. Larson 2017 cautions against drawing such a fixed dichotomy in exploring the issue of deer sacrifice in Greek antiquity. While there is far less evidence for the sacrifice of deer during this period, as opposed to the sacrifice of domestic livestock such as cattle, sheep, goats and pigs, the question of where these deer were killed—be this at the sanctuary or outside it, i.e. in the wild, or at a special game park—requires more investigation. If some of these wild animals were indeed killed outside the sanctuary, and subsequently brought to the sanctuary to serve as burnt offerings to the gods, then frameworks stressing such an action as forbidden may need revising.

[24] Ekroth 2009; 2016; 2017a proposes this same point.

[25] Cf. e.g. *LSAM* 37, lines 6–15; *LSCG* 28, lines 5–9; see also Naiden 2013, 202; Scullion 2009, 154–156; Carbon 2017.

[26] See, for example, *IG* II² 1496.

[27] See Ekroth 2016, 39 and Larson 2017, 49 for further details of hides/skins as votive offerings in Greek sanctuaries. Among the pieces identified as such are deer and wild boar, but also a variety from exotic beasts, including lions, camels, and gazelles.

[28] For an overview of some of these data, alongside measures for recognizing tanning and tanneries in the archaeological record, see the collection of papers in Audoin-Rouzeau & Beyries 2002 and Thomson & Mould 2011. Leguilloux 2004 assesses the evidence, including zooarchaeological remains, for the leather and hide industries in Roman antiquity.

[29] *LSS* 4; Dillon 1997, 126 suggests a connection between these hides and the animals sacrificed in the sanctuary.

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and vertebrae than do non-ritual sites. Does this imply these elements factored more in ritual dining of beef than among non-ritual contexts? Such a hypothesis is possible, but one should also be wary that research biases may have forced individuals to seek out and identify these elements more astutely at ritual sites—notably in efforts to investigate the role of caudal vertebrae in sacrifice overall.[30] Thus, it may be that a desire to prioritize some sacred meaning for an assemblage, as "ritual dining waste", has elevated the importance of finding, describing, and discussing ribs and vertebrae in such contexts. Preservation and identification biases can further amplify the frequency of cattle phalanges in faunal assemblages, which may account for foot bones of cattle registering overall at nearly double the rate of such elements for sheep/goat (see *Fig. 3* for sheep/goat).[31] It is unlikely that such a pattern implies that relatively more cattle (as opposed to sheep/goat) hides, with feet attached and later removed while processing the hides, were retained within Greek ritual sites, although this scenario remains a possibility. Nevertheless, nothing firmly registers in the data to denote marked variation between burnt and unburnt ritual deposits in this respect. If cattle hides were typically stripped from sacrificial carcasses (even for holocaust examples) and provided to priests or other agents (and presumably removed from the area for processing elsewhere), one might expect near zero representation of foot elements in ritual settings, and notably in ritually burnt assemblages. This does not always seem to be the case. Indeed, the high frequency of foot elements from cattle that are recovered within Greek ritual sites suggests that hide removal may not have been consistently performed among such contexts.

Sheep and goats

Although cattle factored in certain rituals in Greek antiquity, sacrifice of sheep and goats was more plentiful. Additionally, samples of sheep/goat bones tend to be more abundant among sites, which may assist in drawing upon larger, more statistically-reliable sample sizes for investigation. *Fig. 3* presents the results for skeletal-part assessments for sheep/goat among ritual and non-ritual contexts. As with *Fig. 2*, non-ritual sites are listed in the bottom portion of the graph, and ritual sites are displayed in the top part, with sites arranged by decreasing percentage of "head + teeth" figures. Among the sheep/goat data presented, there is a greater tendency for forelimb and/or hindlimb elements to dominate some ritual assemblages, notably shown among burnt examples at the sites of Plakari and Eretria. Here, there is firm evidence for deliberate selection of thighbones (femur) for *thysia* sacrifice. Nevertheless, a number of sites in the middle territory of the ritual section displayed in *Fig. 3* yield rather mixed results, with varying proportions of skeletal parts, but often dominated by limb elements. Some of these examples are burnt; some are not, underlying in turn the variability within the use and distribution of sheep/goat elements in ritual settings. Put simply, patterns for altar-, consumption-, and butchery-refuse are not particularly clear-cut among these cases in the middle section of the ritual portion of the graph in *Fig. 3*. Notwithstanding the concerns centering around the varying degrees to which faunal and archaeological reports provide the requisite details and data investigators may desire,[32] the

[30] By way of comparison, it is important to indicate here that overall frequency values for the "rib" and "vertebrae" categories are highest for cattle (*Fig. 2*), as compared to sheep/goat (*Fig. 3*) and pig (*Fig. 4*). Given their greater size, and the lack of remains from any similarly sized taxa, investigators may have been more inclined to identify any "larger" vertebrae or ribs recovered as belonging to cattle, in this case, while perhaps remaining more cautious in assigning any smaller-sized (and noticeably non-cattle) vertebrae and ribs as either sheep, goat or pig (given the potential overlap in size and features for ribs and vertebrae among these three taxa). Essentially, therefore, this discrepancy may be linked with problems of identification by association, as outlined above, and expressed in Driver 1991; 2011.

[31] This phenomenon occurs among a number of sites, regardless of timeframe or context. For example, cattle extremity bones (that is, those connected with the lower leg and foot) account for, on average, 30% of NISP totals among Roman sites in Italy (MacKinnon 2004, 196–200), while associated values for sheep/goat and pigs tally 22% and 15%, respectively. While a host of taphonomic, recovery and preservation issues can influence this bias, one possibility, as outlined by Groot 2014, 42, is that enhanced fragmentation of large cattle elements (such as the long bones, perhaps within measures to butcher these into smaller cuts), inadvertently augmented the chances of identifying smaller elements, such as phalanges, for this taxon. The same degree of fragmentation for limb bones may not have been practiced in the case of smaller taxa, such as sheep, goats and pigs, in turn leading to relatively more of their long-bones being identified. Given the complicated (and not always predictable) nature of bone taphonomy, and the range of cultural and natural possibilities and permutations that can affect the composition of a faunal assemblage, this reinforces the need for more nuanced assessments of the formation processes that underline all zooarchaeological samples.

[32] Part of this confusion may link to a lack of detail in distinguishing specific contexts or sub-levels of deposits within a site, as can result when faunal remains are pooled from a wider zone at a site and reported as a general unit (e.g. Kalapodi, Miletos). Additional concerns may register if the nature and degree of burning among materials is not detailed sufficiently within reports. For example, ascribing descriptors such as "mostly burnt", "often burnt", etc., without specifics as to what elements are affected and to what intensities, add levels of uncertainty. The degree of burning often acts as a hallmark for the activity. Dinner debris is normally never burnt to the degree of altar debris. Generally in burning "rubbish", such as food waste, fires are not stoked to reach the intensity or duration to calcine bone materials. Nonetheless, the possibility exists that one could, technically, burn dinner debris to such as state (i.e. calcine it) and that it could thus mimic sacrificial debris (be this *thysia* or holocaust, depending on the materials from the dinner debris that were burnt). This issue requires further investigation, even if assumed to be a remote or unexpected possibility, as it could explain some of the variability exhibited in the "middle section" of *Fig. 3*.

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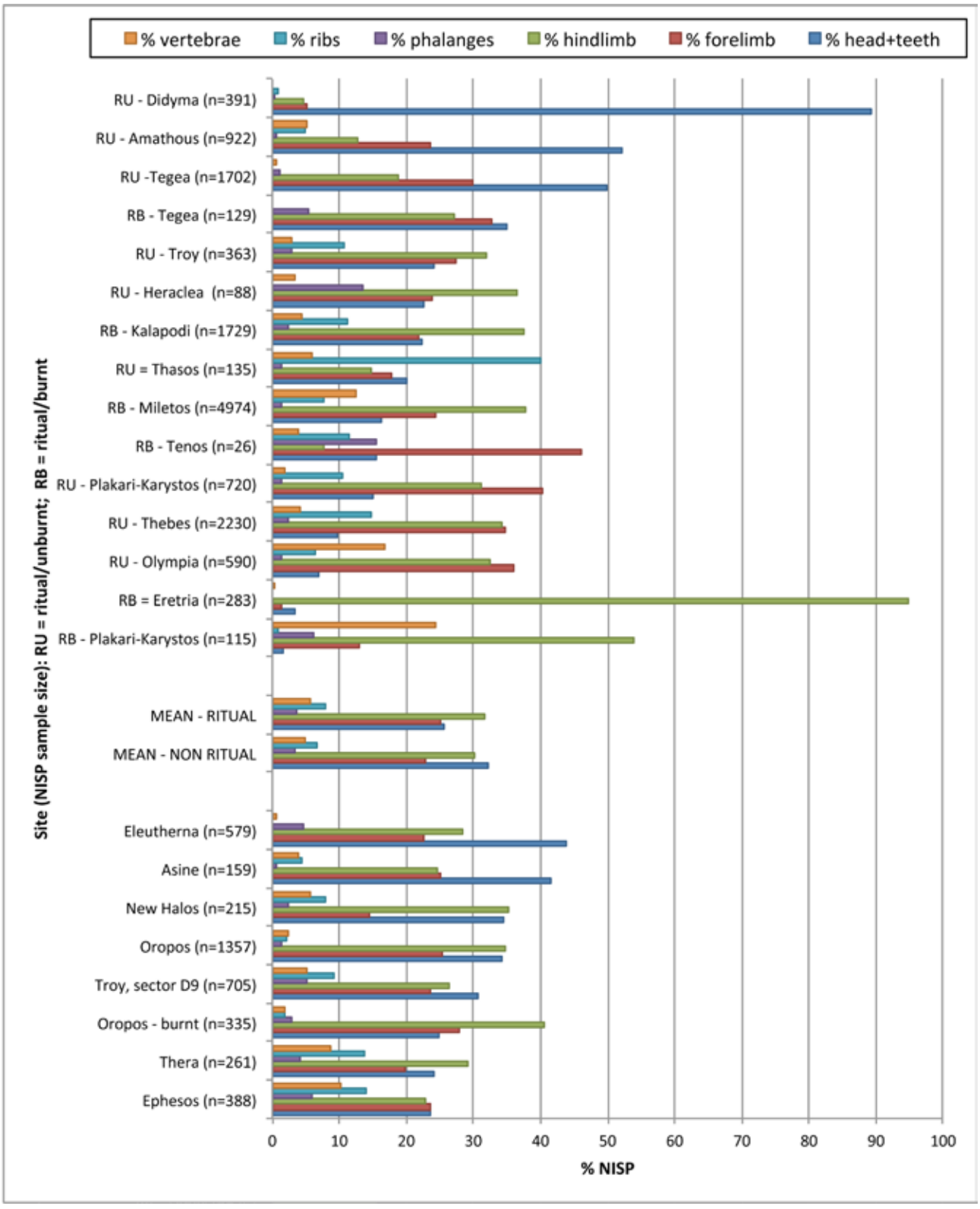

Fig. 3. Sheep/goat: NISP frequencies for six skeletal-part categories (vertebrae, ribs, phalanges, hindlimb, forelimb, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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wider hypothesis that faunal materials from all three activities, even if separated in practice, eventually were disposed of in the same deposit, should be entertained.[33] If so, then hopes of dissecting components become rather difficult, which in turn forces us to re-evaluate some notions of ritual practices (and some of the stages therein) as being both distinct and spatially separate in terms of the types of faunal remains generated. At the top end of the ritual portion of the graph in *Fig. 3* sit contexts heavily dominated by cranial elements, notably the sites of Didyma, Amathous, and Tegea. Caution is required in ascribing too much significance here. Recall that these sites also recorded similar patterns for cattle parts (*Fig. 2*), specifically a greater frequency of elements deriving from heads and teeth. While it is possible that this cranial dominance reflects similar processing for cattle and sheep/goat, with retention of heads as butchery waste and removal of the remaining parts of the skeleton for other purposes (ritual burning, consumption, sale or otherwise), the correlation of this trend across multiple animal taxa at these sites prompts the hypothesis that the patterns observed may reflect artificial/post depositional factors (i.e. they are due, at least in some measure, to taphonomic, preservation, recovery and identification biases, etc.) as opposed to being solely cultural in their formation. In the case of Didyma specifically, a fragmentary inscription attests to the sale of sacrificial meat and parts of animals, including heads and extremities.[34] Although the inscription is not specific as to which type of animal is concerned, perhaps referencing any four-footed herd animal, it is tempting to attribute the associated faunal evidence as part of a scenario of a specific stockpiling of heads at Didyma, albeit both cattle and sheep/goat heads (below, it will be further revealed that the same pattern arises for pigs, *Fig. 4*; thus, heads dominate among assemblage counts for all three taxa).

In some cases, Didyma being one, but also at Thebes and Kalapodi, the "head + teeth" category is disproportionately affected by relatively high counts for horn cores, often those of goats over sheep.[35] Both cultural and taphonomic factors may help understand aspects of this phenomenon. Goat horn cores tend to survive better than those of sheep, so preservation and recovery factors probably play a role in this specific bias of goat over sheep, although when numbers are overwhelmingly either sheep or goat, as regards the recovered horn cores, then a much stronger argument for species-specific cultural selection of one taxon might apply.[36] The latter aspect subsequently begs the question: why retain horn cores within ritual settings in the first place? Some of this might not be deliberate or obvious. The inscription from Didyma mentions cutting the horns prior to the sale of the heads, a process that might in turn leave the horns as "leftovers" and in need of some form of disposal at the sanctuary.[37] Alternatively, more deliberate actions might underscore the patterns observed. As noted by Gerhard Forstenpointner, for example, horns may have been specifically curated within sanctuary sites to construct altars, as in the case of the Keraton (i.e. "bone/horn altar") at Delos (although here, cattle horns were selected).[38] Regardless of taxon, however—cattle, sheep or goat—horns are often imbued with symbolic meaning, as signs of strength, supremacy, power, and procreative vigour, among other aspects.[39] One can then correlate the horn's ties in ritual: its portrayal, alongside the *bucranium*, is common in ancient iconography, a point which will be developed later in this chapter in a wider commentary on the symbolic significance of animal heads in ancient ritual.

As with the case for cattle (*Fig. 2*), the sheep/goat non-ritual and ritual patterns (*Fig. 3*) draw parallels, notably when outliers at the extreme ends of each graph are removed. When mean values are compared, as shown in the center of the graphs in *Figs. 2* and *3*, similar conclusions between taxa can again be made. Heads register with slightly more frequency among non-ritual sites for both cattle and sheep/goat. Forelimbs, hindlimbs, ribs and vertebrae are marginally better represented at ritual sites, but not significantly. If sheep/goat butchery refuse, which we might expect to include the head and feet, is often missing from sanctuary contexts, at least in

[33] This possibility is noted by Groot 2014, 42, as well, specifically in the case of some materials from the site of Plakari-Karystos. This might also explain the somewhat "mixed" assemblage (i.e. containing burnt and unburnt remains from an array of species and skeletal parts) retrieved from the *bothros* that was excavated within the *temenos* at the site of Miletos.

[34] *LSAM* 54, but to be consulted as *I.Didyma* 482. For further information about the sale of sacrificial meat in Greek antiquity, with particular reference to Athens, see Rosivach 1994. Parker 2010 examines the issue of the sale and consumption of "un-sacrificial" meat.

[35] A preference for goat over sheep, in some cases, such as the site of Ephesos, may relate to veneration of Artemis, for whom goats were especially selected. Nonetheless, this explanation is not universal for all cases noted.

[36] A further reason why goat horns seem preferred among ancient Greek ritual assemblages may be a function of their shape—being long and pointed, as opposed to curved, in the case of sheep. This may have made them more practical and stable for purposes of construction, such as the formation of horn altars.

[37] I am grateful to Jan-Matheiu Carbon for assistance with the Didyma inscription.

[38] See Forstenpointner *et al.* 2013 for further details about, and references to, the Delian "horn altar".

[39] Forstenpointner *et al.* 2013, 238–240. See Forstenpointner 2000, 51–65, for discussion of the symbolic importance of the 2,118 caprine horn cores recovered from Geometric and Corinthian layers of the Artemision site at Ephesos. Further examples of horn cores in association with ancient Greek ritual contexts are outlined in Jameson 1988, 92–93. Ekroth 2014, 327, notes that head of cattle, sheep, and even deer adorned ancient religious altars and architecture, and are often depicted in sacrificial scenes on Attic vases. The symbolic nature of the horn is perhaps best encapsulated in the form of the "cornucopia" or "horn of plenty" as portrayed in ancient Greek and Roman myth and culture (De Girolami Cheney 1998, 19). See also Zachari in this volume, *Chapter 7*.

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relation to altar- and feasting-debris, then no substantial proof exists, on average across all sites, that this material was initially retained at, or subsequently exported back to, non-ritual sites. Again, it is important to stress that this is a comparison across all sites, recognizing that some ritual sites, like Tegea, Amathous, and Didyma, do register deposits with substantially high frequencies of head elements. Nonetheless, it should be noted that these sites simultaneously record a lack of feet elements, so each case might not qualify neatly as expected butchery refuse in this respect (i.e. only half of what we might expect is there).[40]

Sheep/goat phalanges (i.e. their feet) seem under-represented among most sites (*Fig. 3*), ritual and non-ritual, barely registering averages of 3–4%, values far less than what one might anticipate given the durability of these elements within archaeological assemblages, and the ease with which they might be identified. As a comparison, note that corresponding values for cattle phalanges (*Fig. 2*) average about double this rate. What should be concluded from this pattern? Are sheep/goat hides, with feet attached, generally removed from both ritual and non-ritual settings, and deposited at some outside/off-site processing and tanning locations? While it is possible phalanges of sheep/goat are being exported in their constituent hides and consequently under-represented among both ritual and non-ritual sites in Greek antiquity, the fact that pig phalanges are also under-represented casts doubt on this deficiency being truly a cultural phenomenon related solely to the treatment of skins or hides. The expectation is that pig skins would not be stripped from the carcass as might sheep/goat hides (i.e. pig skins tend to be left attached), so no imbalance in pig phalanges should result. Moreover, pigs have twice the number of phalanges than sheep/goat, so, if anything, their values should be far more inflated. This is not the case (see *Fig. 4*).

Admittedly, what is desired for a deeper exploration of these issues are large samples from various contexts (ritual and otherwise) from the same site with which to test these import/export hypotheses. The site of Troy, for example, provides some comparisons to this effect, but its patterns are not significantly skewed to support any marked import/export of skeletal parts between ritual and non-ritual spots.[41] Comparisons at Nemea indicated some zooarchaeological connections between ritual and non-ritual assemblages, but samples were too small for several of the contexts considered to yield strong statistical results.[42] Consequently, putting aside the case of burnt *thysia* sacrifice among Greek ritual sites, and the unique skeletal part patterning (and charred/calcined nature) these samples exemplify (i.e. in this sense, the burning of thighbones and sacrum/tail elements predominantly), zooarchaeological materials associated with consumption debris and butchery debris, be this ritual or not, register little marked variation among Greek sites overall.

Pigs

As already anticipated, an examination of the patterns displayed for pigs among Greek ritual and non-ritual sites might help qualify some of the trends noted for cattle and sheep/goat. Generally, in relation to cattle or sheep/goat, pigs are more infrequently found in sacrificial deposits from Greek antiquity; thus, their sample sizes are typically smaller across ritual sites overall. Mytilene and Ephesos, however, stand as notable exceptions to this pattern, since the particular sites at these locations have connections to Demeter, for whom pigs were especially sacrificed.[43] Nevertheless, what arises from an inspection of both the ritual and non-ritual sections of the graph for pigs (*Fig. 4*) is a general predominance of cranial elements. This phenomenon is fairly standard across many sites where pigs register, regardless of timeframe or location;[44] thus, the concept is more likely a taphonomic, recovery, and identification aspect than definitive proof that pig heads were imported or exported among sites with the result of skewing the frequency of skeletal proportions.[45] Nevertheless, even with these concerns, a marked predominance of pig heads, beyond the 50% threshold, might indicate some import/export/retention dynamics concerning this element. Rather conspicuously among the ritual sites, Tegea and Didyma register high frequency counts in the "head + teeth" category for pigs, just as they did for cattle and sheep/goat. Does this mean that all three taxa were processed similarly? Perhaps, but this is probably influenced, at least in part, by taphonomic patterns, more than being solely a cultural construct: overall, larger and bet-

[40] The situation is not always clear-cut, however, as horn cores may dominate counts among the "head + teeth" category. Thus, at Didyma, where a "horn core bias" registers in the faunal assemblage, the remaining portions of the cranium, as well as the feet, could have been sold or taken away with the hide.

[41] See Fabiš 1996; 1999; 2002, for zooarchaeological reports for Troy.

[42] MacKinnon 2013 provides results for Nemea.

[43] Clinton 2005 provides a thorough account of the use of pigs in Greek rituals.

[44] This trend occurs, for example, across many Roman sites I have investigated. See MacKinnon 2004 for patterns relating to Roman Italy.

[45] The age of the animal may also factor in this pattern. Overall, pigs tend to be killed at younger ages among Greek sites (sacrificial or otherwise) than is the case for other livestock taxa, such as cattle or sheep/goat. The younger age for pigs, thus, can introduce a bias towards teeth (which preserve well, even if deciduous) rather than long-bones (which register a greater propensity to degrade taphonomically, especially if from immature individuals); this bias would bolster counts for the "head + teeth" category.

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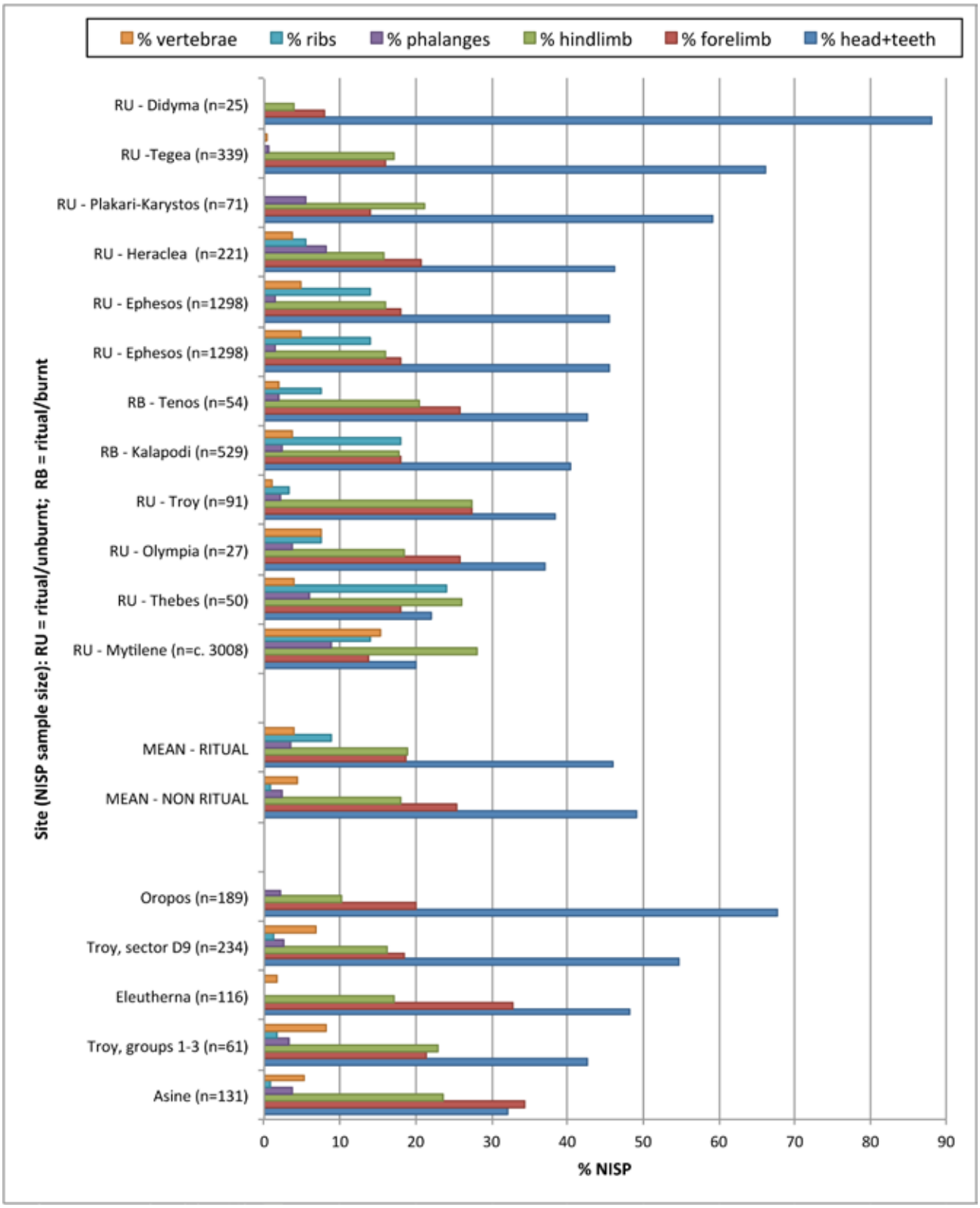

Fig. 4. Pig: NISP frequencies for six skeletal-part categories (vertebrae, ribs, phalanges, hindlimb, forelimb, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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ter-preserved faunal elements dominate NISP counts among those two assemblages.[46] Ribs and vertebrae of pigs register infrequently among most non-ritual sites, but comprise sizeable proportions of counts at places such as Mytilene, Thebes, and Ephesos, among ritual sites. Again, caution is warranted; this may be an artificial construct, if ribs and vertebrae in these cases have been identified as pig largely via association biases. Thus, if a deposit is noted as "all pig", then investigators might be inclined to identify ribs and vertebrae as pig, even if such precision would not normally be administered in deposits of mixed taxa (i.e. ones containing a mixture of remains from "medium-sized" animals including dog, pig, sheep, goat, etc.—species whose ribs often look similar). Moreover, as noted earlier, researchers may be more prone to include counts of ribs and vertebrae among ritual assemblages than might be the case in reporting for non-ritual contexts. Consequently, counts for the category of "consumption debris" from ritual feasts may be more apt to register these elements than might figures for non-ritual sites—which ultimately places a bias upon patterns drawn from the data.

Even with some of these concerns, mean values for pigs among ritual and non-ritual sites (*Fig. 4*) display strikingly similar trends, just as they did in the cases for cattle (*Fig. 2*) and sheep/goat (*Fig. 3*) respectively. Direct zooarchaeological cases for *thysia* sacrifice (be this thighbones or sacrum/tail bones) involving pigs are not known from the available faunal literature for Greek ritual. Generally, in most cases, and as exemplified at Mytilene, whole pigs were sacrificed.[47] Questions then surface as to whether the burnt pig remains from Kalapodi and Tenos represent pure altar debris (and any type of *thysia* sacrifice contained therein) or are mixtures from cooking and feasting debris.[48] Overall, however, assessment of the data for pigs prompts similar concerns as broached earlier in the discussion of trends for cattle and sheep/goat, specifically of a greater need to scrutinize the effects of taphonomy, preservation and recovery biases in faunal samples from ancient Greek contexts, and to do so with an eye towards the influence of these factors across the entire array of taxa recovered from these sites as a whole. In the present study, comparison of the three principal taxa—cattle, sheep/goat, pig—reveals some similar patterns, not simply between any individual taxon (e.g. cattle vs pig; sheep/goat vs pig; cattle vs sheep/goat), but also between ritual and non-ritual settings. Such findings might not surface had attention focused on any single taxon, type of site, or select body part (be this altar offerings, consumption debris or butchery debris).

Summary and conclusions

To summarize, a few key points can be proposed. First, what surfaces most distinctly from the graphs presented above for cattle, sheep/goat, and pigs is that comparisons of mean values for the various skeletal-part categories between ritual and non-ritual sites, on average, are markedly similar in each case. Certainly, this does not negate the fact that some ritual patterns are unique, as regards selection of different elements to burn on the altar, but any sort of uniqueness one might wish to attribute to butchery or consumption debris within a ritual context is rather mundane, I would argue, when set against this pattern among non-ritual sites. This is not to say the events themselves are similar, but rather that from a zooarchaeological perspective the materials that result are not particularly distinctive. The resemblance might be further enhanced in that general patterns pertaining to the ages of the animals involved, the types and locations of butchery marks evident, and the overall health of the animals also display little variation between ritual and non-ritual sites, with regard to these butchery and consumption debris categories. To express these aspects more bluntly: same stuff, different spots. Butch-

[46] There is also the bias that augmented identification of cranial elements (especially maxillae, mandibles, and their associated teeth) bolstered NISP figures for these pieces in relation to other skeletal parts at these sites. In the case of Tegea, specifically, teeth account for more than 50% of the pig assemblage, but figures are also quite high when sheep/goat and cattle components are assessed. Enhanced post-depositional modification of a sample can also create a scenario where teeth become isolated from their respective mandible/maxilla, which can artificially elevate counts if each individual tooth is subsequently counted and recorded. This situation can be further aggravated if a tooth becomes fragmented which might lead to it potentially being counted more than once.

[47] Given the detail in which it is reported, the Mytilene material provides an ideal osteological study of holocaust sacrificial ritual. Nevertheless, although all parts of the pig skeleton are present within this assemblage, a testament to some measure of holocaust activity, proportions among the various elements are not as perfectly aligned as might be expected. For example, left side elements occur more frequently (by 12%), while forelimb bones are 40% more plentiful than hind-limb bones. Ruscillo 2013, 189, suggests that the latter discrepancy may be a factor of taphonomic biases, given that the west side of the pit containing these materials was destroyed, but further acknowledges the possibility of cultural causes, such as the splitting of the offerings into two parts, variation among portions shared with event participants (with front- and hind-limbs used differently), or even the removal of sections (namely hind-limbs) from the area. Should cultural factors underlie this differential treatment of skeletal parts for the Mytilene faunal material, then it brings into question the nature of holocaust sacrifice as representing the strict burning of an entire animal, with subsequent deposition of all of its skeletal elements. See further below and Ekroth in this volume, *Chapter 12*.

[48] Ekroth 2014, 343–344 notes that thighbones, sacra and caudal vertebrae from pigs hardly register among burnt assemblages from Greek sacrificial altars. She suggests that, in general, pigs may have instead been sacrificed in rituals in a manner that highlighted the meatier aspects of these animals. Pork was a popular meat for consumption, and does register among dining debris both within and outside ritual settings in Greek antiquity.

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ery and consumption debris, thus, at least from a general osteological point of view, do not seem to be markedly different depending on their location or context among ancient Greek sites, whether these be ritual sites or not. Nevertheless, as noted above and as needs to be re-iterated, this does not imply equality among these activities, for cultural variables and conditions are certainly distinct between such contexts. Going forward, then, it is important now to "fine-tune" our patterns for each site and build a fuller, more nuanced, picture of each. Thus, while general patterns might seem similar among ritual and non-ritual sites across aspects such as skeletal elements, ages, and other components, enhancing our investigations by cross-cutting these categories at more refined levels may show critical variation (e.g. are the lower right legs of all young, female sheep of the same breed, which were destined for consumption, butchered in the same fashion between ritual and non-ritual settings?—and similar questions that engage various aspects in an interrelated fashion). Such an examination requires a greater eye to scrutiny and precision in the initial observation of zooarchaeological remains, with the simultaneous obligation to record these details and make them available subsequently. This can be challenging in an environment where space for publication or dissemination is limited.

A second point to stress is that no marked patterns arise in the ritual assemblages to denote any special curation of foot elements particularly: heads perhaps, but not feet. Whether or not any preference for heads reflects (1) deliberate retention of horns among ritual sites; or (2) relates to some type of symbolic role of heads as visual markers of sacrifice, or (3) denotes removal of other elements with heads left behind as waste,[49] or (4) is simply a factor of taphonomic, recovery, and identification biases among taxa, is a matter of debate, and troublesome to pinpoint neatly, when it may well be the case that each variable may apply in unique combination across any given site. The notion of an animal's head as a recognizable, visual marker is not as marked within Greek sacrificial iconography in the same measure as the case where tails and chunks of meat are typically displayed being roasted on fires,[50] but *bucrania* are ubiquitous in Greco-Roman iconography.[51] Moreover, animal heads often assume significance in many cultural practices. Roman funerary contexts, for example, register a greater incidence of heads of animals, such as pigs and equids. Arguments centering upon symbolism—such as the head as a marker of a grave, or indicator/advertiser of proper veneration or sacrifice—tend to be applied in a number of Iron Age and Roman cases,[52] and similar notions may be worthwhile to explore more deeply for Greek antiquity. An animal's head is its biggest, socially recognizable asset, even if it might be less valuable in terms of any meat or physical product it might supply.[53]

As for the feet, phalanges for sheep/goat and pig are rather poorly represented among both ritual and non-ritual sites for Greek antiquity, but curiously more numerous when cattle are assessed. This is probably a taphonomy, recovery, and identification problem, and not a reflection that hides or leg bones with feet, or any other permutation that includes foot bones, were valued more in the case of cattle than they were for sheep/goat (or pigs for that matter) in Greek ritual contexts. This has relevance especially when one tries to reconcile textual or iconographic evidence that suggests specific prerogatives, such as the hide, or leg of meat (with foot attached) were awarded to the priest or other ritual official.[54] Overall, most of the deposits ascribed as butchery and dining debris from ritual contexts contain no more exceptional patterns, in terms of skeletal-part frequencies, than do their correlates outside of ritual spots, be this in Greek antiquity and beyond. In fact, one could insert hundreds of Roman non-ritual sites into these same graphs presented above for the ritual sites in Greek

[49] Whether or not these heads were subsequently butchered to remove elements such as the tongue, cheek muscles, brain, and other edible components, for ritual dining, requires more research. Given that these parts tend not to be associated with the "best-quality" meat from an animal's carcass, however, suggests that deliberate, specific and prioritized procurement of "head elements" for ritual dining was probably unlikely, at least in relation to "better-quality" cuts of meat that could be obtained (such as materials associated with the torso and upper legs of an animal). Nonetheless, as outlined by Ekroth 2007, 260–268, there is evidence that a host of animal taxa, including game, dogs, equids, fish, birds, etc. could supplement consumption debris within ritual settings. In this context, therefore, heads of cattle, sheep/goat and pig might easily have been incorporated into large stewpots when fashioning ritual meals.

[50] For the iconographical evidence, see, especially, van Straten 1995, but also Ekroth 2009, 132–134; 2013a, 19–25.

[51] Tyler Jo Smith in this volume, *Chapter 6*, examines the portrayal of animal heads in scenes of sacrifice in Greek vases most astutely. See also the contribution by Zachari, *Chapter 7*.

[52] Groot 2008, 183.

[53] By their nature, *bucrania* are most meaningful when displayed as complete pieces. In that form one could more readily distinguish the type of animal chosen (see also Zachari in this volume, *Chapter 7*). Hypothetically, as a fairly fragile element, itself comprised of a variety of individual bones, a *bucranium* was likely more susceptible to breakage than other elements of the skeleton. Thus, by way of speculation, if burnt or charred (tactics that would enhance breakage, in an already fragile skeletal element), crania might lose their recognizable nature, a situation that might render the head less common in depictions from charred sacrificial contexts overall for Greek antiquity. As noted, the issue requires greater investigation overall, particularly through experimental archaeology (especially tests that explore burning rates and fragmentation patterns for different skeletal elements across various animal taxa).

[54] For further discussion of various animal products (including joints of meat) received by the priest within ancient Greek ritual settings, see Meuli 1946, 220–221; Gill 1974, 127–133; Le Guen-Pollet 1991, 13–23; Ekroth 2009, 145; 2011, 36–40; 2013b, 115–129.

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antiquity and nothing might seem out of place in terms of the overall trends displayed for proportions of skeletal parts.[55]

To conclude, the graphs presented thus far in this chapter outline skeletal-part frequency values that separated limbs by front and back leg and also included counts for ribs and vertebrae. Within these calculations, phalanges (the feet) were given their own category, so as to highlight their representation specifically. Suffice it to say that "there are many ways to skin a cat" here. In preparing statistics for this chapter, graphs were also constructed that excluded the categories for ribs and vertebrae and assessed the remaining skeletal-part groups by one of four classes: (1) head + teeth; (2) primary cuts (that is, scapula, humerus, pelvis, and femur); (3) secondary cuts (i.e. radius, ulna, tibia, and fibula); and (4) limb extremities (i.e. metapodials, carpals, tarsals, phalanges). As noted previously, among the faunal reports consulted, ribs and vertebrae were not always expressly identified to an individual taxon, such as cattle, sheep/goat, or pig. Thus, in an effort to avoid some of the biases that can result from this omission, and in turn potentially include sites not originally recorded in *Figs. 2–4*, figures were re-calculated on the basis of the revised four-category system outlined above. These new graphs are presented as *Fig. 5* (cattle), *Fig. 6* (sheep/goat) and *Fig. 7* (pigs). Obviously, these revised figures cannot afford a comprehensive picture of patterns of use for skeletal parts for an entire animal, given that ribs and vertebrae are excluded. Nonetheless, depending upon how animal hides are apportioned, the section of the leg from the metapodial downwards to the foot is occasionally considered "waste" or at least less important from the point of view of meat acquisition.[56] Consequently, this can affect results, notably in investigations concerning import/export of hides/skins, an angle of interest in the current assessment of the representation of animal parts among ritual and non-ritual sites in Greek antiquity. Additionally, sub-dividing an animal carcass into "primary" and "secondary" cuts affords an opportunity with which to compare the quality of meat in association. Primary cuts of meat tend to be meatier, fattier, and of higher quality than secondary cuts. Typically, these pieces are sought after or prized, and often indicative of higher status, although tastes and value as regards meat choices are certainly culturally circumscribed, and by no means universal among groups. Nonetheless, at least in the world of Greco-Roman antiquity, primary cuts of meat likely enjoyed more dietary and social prestige than did those associated with secondary cuts.[57] Affixing value to cuts of meat, thus, might affect which parts register among dining and butchery assemblages from Greek sites, especially when considered within a framework of attributing a hierarchy in apportioning various meat cuts among the officials and celebrants involved in the ritual.[58]

Space does not permit a detailed exploration of the data shown in *Figs. 5–7*, but generally the patterns noted mimic their respective counterparts in *Figs. 2–4*. Elements from the "head + teeth" category tend to dominate many examples, especially in the case for pigs. Taphonomic biases play a role here. Teeth survive well in the archaeological record and can inflate statistics for some zooarchaeological counts, again especially as regards values for pigs. In fact, among the taxa represented, pigs register very little variation in the patterns noted (excepting the case of Didyma), be this among individual representatives listed for either the ritual or non-ritual categories of site presented, or between these two general groups as a whole. This finding perhaps establishes a commonality that might emerge in our assessment of the representation of skeletal parts for pigs among a host of sites for Greek antiquity. In other words, one might expect whole pigs to be butchered and consumed (be this within a sacrificial setting or not) with little (or at least, less marked, in relation to other taxa) import/export or movement of parts beyond those contexts. The same, however, cannot be said for cattle and sheep/goat, where patterns displayed in *Figs. 5* and *6* show greater variations among assemblages. Given that vertebrae are excluded from *Figs. 5* and *6*, the case for *osphys* sacrifice is not observable, but elevated frequencies for "primary" cuts for cattle and/or sheep/goat at sites such as Isthmia and Eretria clearly suggest *thysia* sacrifice, predominantly the femur bone in these cases.[59] Nonetheless, caution should be exercised in uncritically attributing too much cultural importance to certain patterns displayed among sheep/goat and cattle figures. For example, enhanced identification of the readily-recogniz-

[55] MacKinnon 2004 provides comparative data for frequencies of skeletal parts for cattle, sheep/goat and pig for various sites in Roman Italy, for example.

[56] MacKinnon 2004, 177–184.

[57] MacKinnon 2017.

[58] To illustrate this hierarchy in portioning, Carbon 2017 provides an excellent synthesis of the priestly perquisites in the post-sacrificial division of meat and animal parts in Greek sacrifice.

[59] It should be mentioned here that further contexts at Isthmia, specifically burnt cattle bones from Pits A, B, and C at the Palaimonion, were argued by Gebhard & Reese 2005, 137–139 to represent remains from holocaust sacrifices to the hero Melikertes-Palaimon. However, the breakdown by skeletal element as reported for these findings could not be neatly translated into the categories used among the graphs in this investigation. Nevertheless, these "holocaust" assemblages were overwhelmingly dominated by "head" and "thorax" (i.e. rib and body vertebrae) elements (*c.* 37% head and *c.* 57% thorax), with far fewer bones from the tail and limbs represented. While a holocaust ritual may apply, the imbalance in parts calls into question the treatment of the tail and limb elements within this scenario. Were these removed before or after burning (presumably before)? And, more importantly, must a holocaust sacrifice contain all skeletal parts, collectively, and in more equal frequencies, to be deemed as such (see also Ekroth in this volume, *Chapter 12*). If the presence of burned elements from an animal's head is used as principal argument to suggest a holocaust sacrifice, is this justified? Might it be the case that a head, alone, was burnt, in a special form of ritual?

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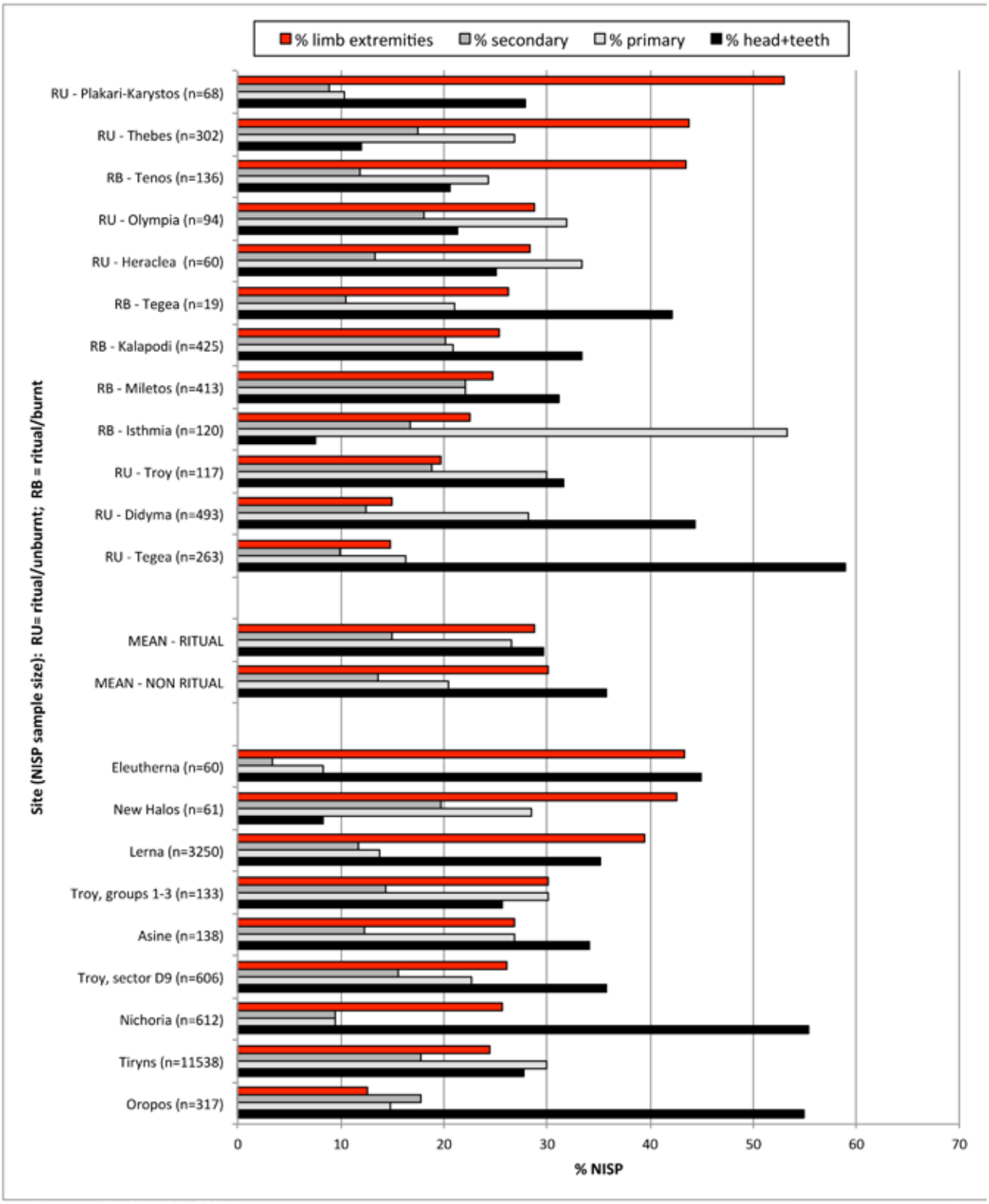

Fig. 5. Cattle: NISP frequencies for four skeletal-part categories (limb extremities, secondary cuts, primary cuts, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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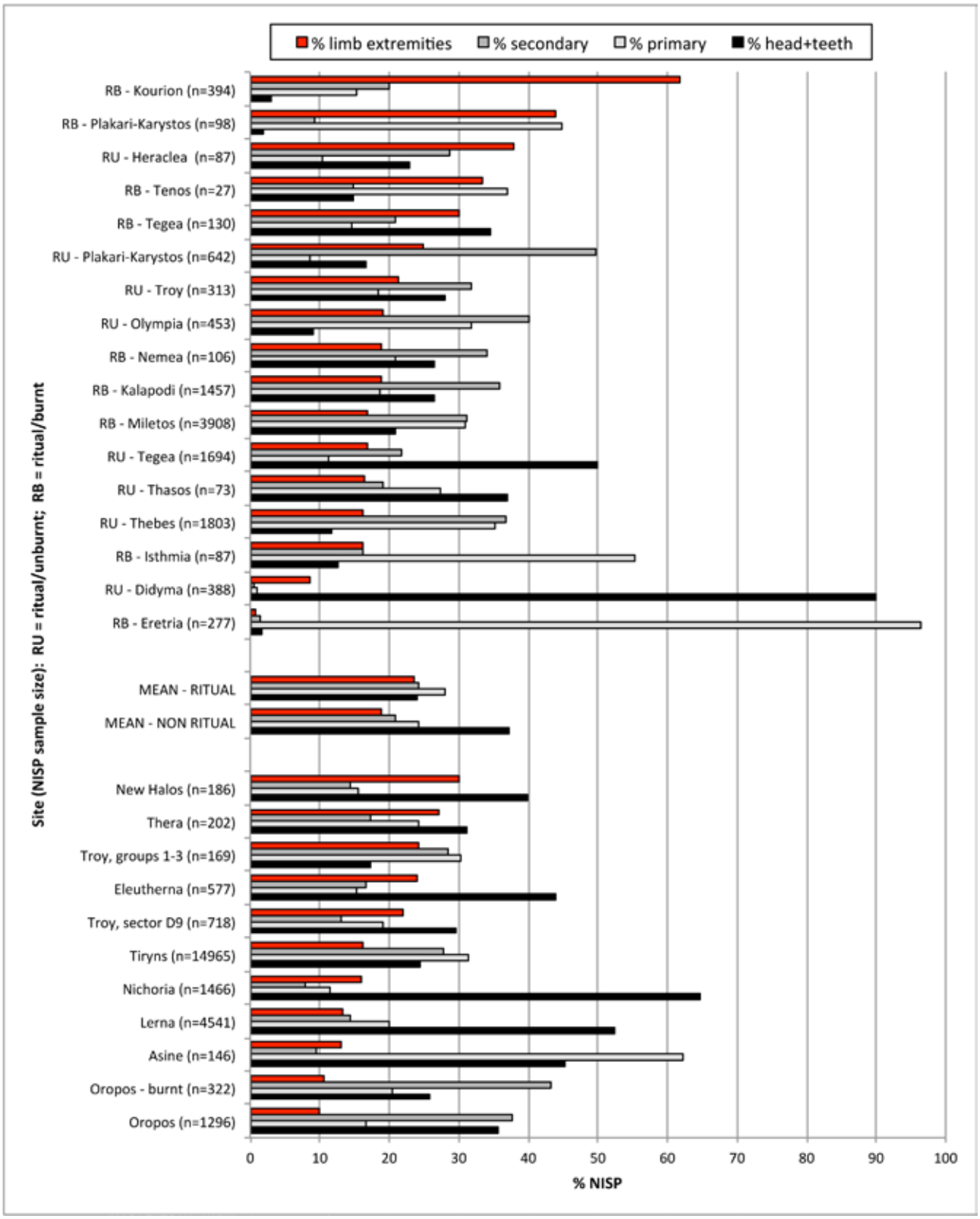

Fig. 6. Sheep/goat: NISP frequencies for four skeletal-part categories (limb extremities, secondary cuts, primary cuts, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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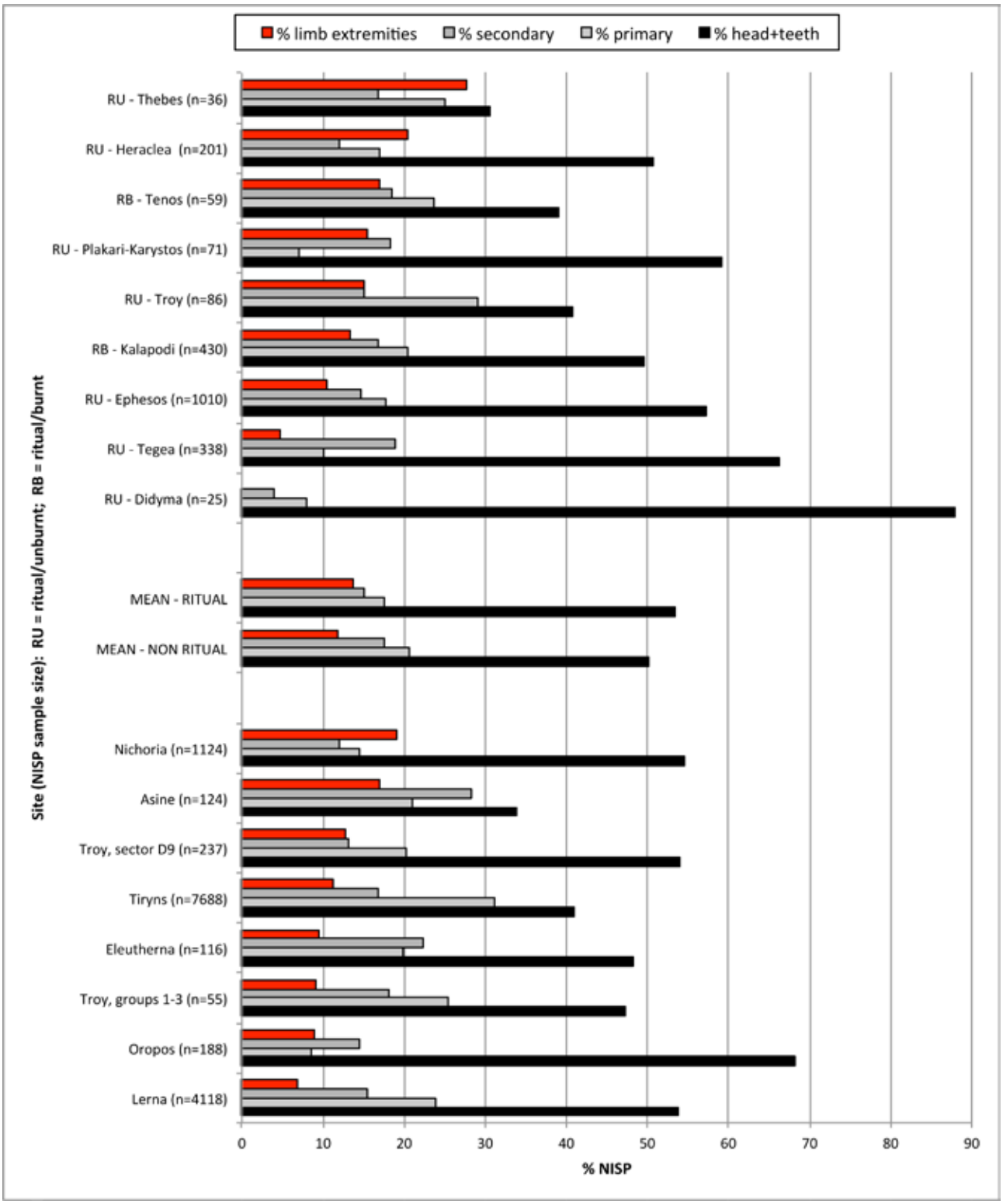

Fig. 7. Pig: NISP frequencies for four skeletal-part categories (limb extremities, secondary cuts, primary cuts, head + teeth) among ritual and non-ritual sites for Greek antiquity. Chart: Michael MacKinnon.

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able astragalus bone within sheep/goat and cattle assemblages can elevate the frequency of both the "hindlimb" and "limb extremities" categories. Add to this a bias that might favour both the preservation and identification of cattle phalanges and the result registers as a far larger incidence of "limb extremities" for this taxon (*c.* 30%), compared to either sheep/goat (*c.* 20%) or pig (*c.* 12%).

Regardless of these particular issues and concerns, perhaps the most critical observation to note overall when examining respective trends for *Figs. 2–4* and *Figs. 5–7* is that average patterns for ritual and non-ritual deposits for each animal taxon remain nearly identical. This reinforces the notion of a greater need to scrutinize the representation and distribution of skeletal parts more assiduously in our investigation of Greek faunal samples across all types of sites. The same conclusion emerged in the analysis of *Figs. 2–4* as well. Moreover, it is important in those investigations to compare trends across all three taxa (in this case, cattle, sheep/goat, and pig) simultaneously, in order to gauge the degree to which a particular pattern that surfaces among one taxon is noted within another. This should not imply that different taxa were not treated differently within ancient ritual settings, but if all three register a certain bias in the representation of skeletal parts, then a focused argument for a unique treatment of any single taxon—without taking into consideration the pattern for the other taxa—becomes less convincing overall.

Looking to the future, a case can be put forward that a deeper, critical assessment of faunal assemblages from Greek antiquity, with a lens towards depositional context, taphonomy, cultural practice, import/export of parts, and inter-, let alone intra-, site variability, inevitably helps create a more nuanced, albeit probably greyer, picture of antiquity. Although the resulting picture might be less concrete in yielding definitive conclusions—that is, black and white statements—, its goal, as noted within the introduction to this chapter, is to be comprehensive and encompassing. Nevertheless, as we progress, more attention should be placed on refining our understanding of skeletal parts among the different sites. Certainly, acknowledging the investigatory biases and concerns outlined in this chapter is a key step, but a movement towards reporting both NISP and MNI (= Minimum Number of Individuals) counts for elements and skeletal-part categories can assist. MNI values help correct biases linked with aspects such as differential fragmentation and the like, and thus move us closer to comparisons along more "absolute" lines, as opposed to the wider, "relative" scope NISP counts afford.[60] Comparisons by skeletal weight for various element categories also provides an avenue of investigation that can help offset concerns with using NISP and MNI counts. Investigations of the categories of ribs and vertebrae, moreover, need more attention, even if these must be lumped into more general pools that record them by general size categories. Furthermore, experimental archaeological ventures, such as the work of Gunnel Ekroth, Gerhard Forstenpointner, and Jake Morton,[61] are key to refining our ideas, but more importantly are venues (such as this volume) that provide an interdisciplinary forum of investigation, uniting multiple lines of evidence in search of collective answers … even if our answers still keep us within that grey zone. After all, "grey is good".

MICHAEL MACKINNON
Department of Classics
University of Winnipeg
m.mackinnon@uwinnipeg.ca

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[60] Reitz & Wing 2008, 205–210 provide a general overview the concept of MNI, and the variety of techniques employed in its calculation.

[61] Ekroth 2009 and her contribution to this volume, *Chapter 12*; Forstenpointner 2003; Forstenpointner *et al.* 2013; Morton 2015 and his contribution to this volume, *Chapter 2*.

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TYLER JO SMITH

6. Taking the bull by the horns

Animal heads in scenes of sacrifice on Greek vases

> But as the bull has no hands and cannot possibly have its horns on its feet or on its knees, where they would prevent flexion, there remains no other site for them but the head; and this therefore they necessarily occupy. In this position, moreover, they are much less in the way of the movements of the body than they would be elsewhere.
>
> Arist. *Part. an*. 3.2.8–12, transl. W. Ogle in Barnes 1995, 1034.

Abstract

While a great deal has been written about the choice and types of animals shown in scenes of sacrifice in ancient Greek art, there has thus far been no study of heads and horns as an isolated category. Many vases portray horned animals as victims and there is surely much to be gleaned by careful observation of their body postures, function in the scenes, and interaction with other figures, be they human or animal. Thus, this paper investigates horned animals in representations of sacrifice in the artistic repertoire of Archaic and Classical Greece, with careful attention to their heads. The evidence will be drawn from the black- and red-figure vases of Athens, with a few examples and comparisons drawn from other regions, such as Corinth, Boeotia, and East Greece. After reviewing the evidence of horned animals on the "animal style" vases of the 7th century BC, the various positions of horned heads in pre-death sacrificial scenes are presented, as well as the ways that the humans and objects present in the scenes interact with and draw attention to these particular animal parts.*

Keywords: Greek vase-painting, iconography, "animal style" decoration, Attic vases, head vases (rhyton), bovine/bull, horns, motion, posture, animal-handling, interaction with animals

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Sacrifice, vases, heads

While a great deal has been written about the choice and types of animals shown in scenes of sacrifice in ancient Greek art, there has thus far been no study of heads and horns as an isolated category. Indeed, many vases portray horned animals as victims and there is surely much to be gleaned by careful observation of their body postures, function in the scenes, and interaction with other figures, be they human or animal. Thus, this paper investigates horned animals in representations of sacrifice in the artistic repertoire of Archaic and Classical Greece, with careful attention to their heads. The evidence will be drawn from the black- and red-figure vases of Athens, with a few examples and comparisons from other regions, such as Corinth, Boeotia, and East Greece. In order to limit the scope, our concern will exclusively be living creatures in the "pre-kill" or—as I prefer to say in this context—*pre-death* stage of the proceedings: that is to say, the focus will be on

* This paper derives from ongoing research on the relationship between ancient Greek art and religion. My sincere thanks are extended to conference organizers, Gunnel Ekroth and Jan-Mathieu Carbon, for their invitation to contribute to this project, and for their assistance throughout. I am also grateful to the following individuals for their help with various aspects of animals, bulls, and religion related to this paper: Elizabeth Bartlett, Alicia Dissinger, Stella Georgoudi, Dionysios Kavadias, the late François Lissarrague, Elizabeth Oltenacu, David Reese, and Vasso Zachari. Date completed: 24 July 2017; updated: 10 November 2021.

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concept rather than on action or process.[1] By isolating this specific part of the sacrificial animal, the head and horns, and selecting this particular class of evidence—one that is both visual and material (image and thing)—it is hoped that we may better understand not only some of the mechanism employed by vase-painters to reveal the subject of sacrifice, but also what meaning and significance there is in observing horn-headed species in this context from the neck up.[2]

Let us begin with the obvious question: why heads, or more to the point, why horned heads? Previous scholarship on animals has emphasized the symbolic significance of horns, such as their possible associations with plenty, fertility, virility, and cuckoldry, their function as "secondary products" (cf. milk, wool), or their contribution to zooarchaeology; and it bears reminding that the head (both with and without horns) has been considered in both ancient and modern cultures as a prized part of the animal for consumption and/or display.[3] Aristotle distinguishes the head as one of "the chief parts into which the whole body is divided", viewing the head as both a physical and sensory centre (along with the heart) of individual animals; in particular, he places hearing, sight, and smell "to be lodged as a rule in the head" as a result of the "character of their sense-organs".[4] Horns he treats in some detail as "appendages of the head", useful for defense, security, or as decoration.[5] For the four-legged creatures under discussion here (cattle, sheep, goats), their horned-heads steer and direct their body.[6] Where the head goes, the body follows. For activities as disparate as eating and fighting these animals must use their heads. Their head controls and concentrates their senses. Although not exclusive to this group of animal species—and despite Aristotle's view—, sight, smell, hearing, taste, and even touch originate from and centre on the head. The head controls behaviour, movement, and interactions. What role, then, do heads and horns play visually? The head, and especially the horned head, is iconic, even diagnostic; recall how Agamemnon is described by Homer (*Il.* 2.518–521): "Picture a bull that stands out from the herd, head and horns above the milling cattle, Zeus on that day made the son of Atreus a man who stood out from the crowd of heroes."[7] In Greek art, and no doubt in other traditions, head and horns identify the variety of animal being depicted. To quote Gunnel Ekroth, the head is one of the "choice portions" and one the "best suited for iconographical representation"; among the flocks and herds themselves, the horns in particular may reveal hierarchy and status.[8] In art as in life, it is accurate to consider the horned head a "visual supercue".[9]

Before looking closely at horned heads in scenes of sacrifice, let us first consider a few of the issues and limitations inherent in using figure-decorated pottery, or "vases", as evidence, and especially as documents of ancient religious practice. The vases produced in the black-and red-figure techniques, in Athens or elsewhere, were (for the most part) highly conventionalized in their decoration; that is to say, visual details of anatomy, clothing, composition, and embellishment are established by one or more painters and repeated in multiple examples, often regardless of the subject matter at hand. The difficulty of portraying figures in motion, especially in black-figure painting, has been a focus of my previous research on komast dancers, and it is safe to say that some of the same rules and problems apply here.[10] How does the painter show a figure, animal or human, dancer or bull, as a dynamic animated figure in the midst of movement? Representing a given animal in an action-pose, such as a ram walking, a goat springing, or a bull nodding its head, would have proved challenging (indeed as challenging as depicting the nuances of dance motion); yet such actions are often critical to understanding a precise activity, moment or narrative. Particular visual solutions were reached by painters to communicate with and appeal to the audience or viewer, and it is those on the receiving end of the imagery (as best as we can determine who they were) who must be kept constantly in mind. At the same time, and again due to the limitations of technique and style, there are certain,

[1] On the descriptive terminology and stages of sacrificial ritual, see van Straten 1995 and Smith 2016, 128–132. For the exploration of dead bodies, see Durand 1989, esp. 87–89, and Sykes 2014, 121–126. The scenes have been classified recently by time and type in Bundrick 2014 and a useful breakdown of the iconographic evidence is Ekroth 2014. Horned animals, especially bulls, decorate shield devices on vases, see Calder 2012, 42–43.

[2] While important, neither the shape of the vessels nor the archaeological context of individual objects will be considered here. See now Paleothodoros 2012.

[3] The bibliography on these topics combined is vast. For zooarchaeology, horn representation, and display see Sykes 2014, 122; MacKinnon 2007, 477–479; Ekroth 2007, 257 ("horns ... could have ended up in a sanctuary when an animal skin was dedicated"); Chenal-Velarde & Studer 2003, 215–220. On skull display: Insoll 2011, 156. On symbolism: Conrad 1957 (cross-cultural); Blok 1981 (rams/goats); Ebbinghaus 2018, 37–41, and Douglass 1999, 8–11 (bulls); Werness 2006, 56–61, 218, and Viscardi 2016 (goats). On Acheloos (man-faced bull in Greek myth), see Aston 2014, 368–369, and on "bovine epiphanies", Petridou 2015, 96–98. On horns as secondary products: Isaakidou 2003 and Davis 1987, ch. 7.

[4] Arist. *Hist. an.* 1.7 (transl. d'A.W. Thompson in Barnes 1995, 783), and see 1.15; and Arist. *Part. an.* 2.10, where he differs from others who place all the senses in the head (transl. W. Ogle in Barnes 1995, 1022).

[5] Arist. *Part. an.* 3.2 (head, transl. W. Ogle in Barnes 1995, 1033–1035).

[6] For each of these horned animals as sacrificial victims, see van Straten 1995, 170–186 and Jameson 2014, ch. 10.

[7] McInerney 2010, 114 (transl. Lombardo); cf. Harden 2014, 94–95.

[8] Ekroth 2008, 264–266.

[9] Bubenik & Bubenik 1990, 22–24, 34–35 and 85–86 ("visual supercue").

[10] On the problem of showing dancers in motion: Smith 2010, 50–52; 2014 (red-figure). See also the comparative discussion of Maya and ancient Greek evidence for dance movement in imagery by Looper 2009, 103–106.

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essential elements of iconography that cannot be determined based on observing vase imagery alone, among them the age of the animal, its physical fitness, health or condition, its colour or its speed.[11]

Despite the fact that the vase surface is a strange and irregular canvas, and one of varying size and shape, it is arguable that these objects by virtue of their imagery, function and context have a great deal to add to the discussion of ancient Greek religion, and in this case to our understanding of animal sacrifice. But should each vase be viewed as a unique manifestation of a single or "real" event in time and space? Or, do the pictures on vases combined provide a sort of idealized practice (consider the well-documented emphasis on certain animals to the near or complete exclusion of others)?[12] Should vases with sacrificial imagery be associated with the religious rituals they portray or are they simply decorative visions drawn from the annals of everyday life? Does the vase-painter have the authority to explain ancient religion to us, and what level of artistic license might these painters have taken? While we must use a certain amount of caution when dealing with vases as evidence, it is arguable that (as with ancient dance) potters and painters had some first-hand experience and familiarity with animal sacrifice. To quote Jean-Louis Durand: "The painters know their sacrifice as well as the scholar."[13]

As we turn now to the vases and their animal images in scenes of sacrifice let us hone in on how the heads are articulated by painters, and with what kinds of detail. Beginning with "animal style" vases of the 7th century BC which introduce animals of many types to vase-painting, we will then consider a series of head positions seen in black- and red-figure, followed by interactions between the horned heads and other elements in scenes. The greatest number of illustrations will be drawn from Athenian vases produced in the 6th and 5th centuries BC where the relevant evidence is most abundant; no attempt is made here, however, to determine the exact animal based on the vase evidence alone (such as wild vs domestic; goats/sheep vs rams).[14] Where and when it is thought to be helpful, mythological subjects and figures are integrated into the discussion, but this is by no means the main emphasis.

Survivors of the "animal style"

Despite its conventional nature and built-in limitations as a medium, Greek vase-painting, much like Greek religion itself (to quote Michael Jameson) "was not static but always modifying, elaborating, and innovating."[15] With such thinking in mind it is important to recognize that the beginnings of our horned sacrificial victims—cattle, sheep, goats—are found on the vases of the so-called "animal style".[16] As Joan Mertens explains: "The new bestiary that was introduced from the East during the late eighth and the seventh centuries BC found rapid and ubiquitous acceptance among the Greeks from Asia Minor ... to Italy. Animals, typically arranged in rows, are a constant feature of vase-painting from the seventh through the sixth century BC."[17] On vases produced in the "Wild Goat Style" of East Greece, in addition to the ubiquitous grazing goats, there are standing bulls and springing goats alongside other animals.[18] For example, on a colourful oinochoe from Rhodes a bull shares the decorative field with a standing stag and a water fowl, and each of the animals is imagined at the same scale.[19] Similarly, on Corinthian vessels, where animal parades are much loved, again we recognize bulls and goats, as well as elaborately horned stags.[20] It is not unusual to find domestic, wild and even fantastical or hybrid creatures sharing a single decorative frieze. Such is the case on the Boeotian lekanis in Montreal attributed to the Protome Painter, where a ram shares the field with lions, panthers, and a siren.[21] According to Karl Kilinski's study of the painter, whom he dates to the 3rd quarter of the 6th century BC, "the bull is rendered with a distinct ear and horn."[22] Unexpectedly, on a Corinthian amphora of *c.* 600 BC and now in New York (*Fig. 1*), a solitary komast dancer has been placed on the shoulder of the vessel between two lions, directly above a frontal faced feline and a bowing bull.[23] It is not being suggested here that any of the animals included in these repetitive animal friezes are beasts bound for the sacrificial altar, or that the human solo performer who joins them on the Corinthian amphora is serving an explicit cultic role. Rather, what is indicated by

[11] Cf. Parker 2011, 133–134, on selecting the animal; *ThesCRA* I, "Sacrifice", 95–103; Ekroth 2008, 275, on age. See also Ekroth 2014, 332–333; and *note 6* (above).

[12] See Ekroth (2014, 158), who states "vase-paintings rarely or never depict precise, real sacrifice: they depict imaginary situations", and Lissarrague (2012, 565), who claims "the painter includes several moments, or more precisely several gestures and objects."

[13] Durand 1989, 99. See also Bremmer 2007, 132 and 139–143; Blok 2009, 129–130.

[14] On the problem of identifying these animals in art, see Kitchell 2014, 36 (cows), 77 (goats), and 170 (sheep/rams).

[15] Jameson 2014, 256.

[16] Harden 2014, 24–25, on the term. See also Coulié 2013, 105–107.

[17] Mertens 2010, 60. See also Boardman 1998, 83–85.

[18] Boardman 1998, 141–144, with illustrations; Cook & Dupont 1998, ch. 8 and more recently Coulié 2013, 143–155.

[19] Boston, Museum of Fine Arts 03.89; Fairbanks 1928, 91, no. 291, pl. 27. Cf. Coulié 2013, 153, fig. 136 (St Petersburg, State Hermitage Museum ТҶ 12).

[20] See Amyx 1988, 665; Boardman 1998, 178–185, with illustrations. For Corinthian "plastic" vessels in animal forms, see Böhm 2014, esp. 99–113 for rams.

[21] Montreal, Museum of Fine Arts 953.Cb.1; Kilinski 1990, 27, no. 23, pl. 26.3–4.

[22] Kilinski 1990, 28.

[23] New York, Metropolitan Museum of Art 06.1021.18; Moore 2006, 36–37, fig. 5.

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Fig. 1. Corinthian black-figure amphora, c. 600 BC. Komast dancer between feline and bull. New York, Metropolitan Museum of Art 06.1021.18. Photograph: Metropolitan Museum of Art, Open Access, Creative Commons Zero (CC0).

these examples is that the same horned animals that appear on black-figure vases during the 6th century BC were already well in circulation amongst vase-painters in multiple regions of Greece. As with the dancing figure just mentioned, in fact the first human figure painted with regularity in the black-figure technique across regions, the presence of these same animals on Orientalizing vases gives us a sense of what was already possible in animal imagery by the time sacrificial iconography is introduced to the vase-painter's repertoire.[24] On Archaic vases produced in the black-figure technique during the 6th century BC, this same menagerie of animals becomes subsidiary ornamentation on vases featuring both myth and daily life scenes as primary decoration, as is well demonstrated by painters of the Tyrrhenian Group.[25]

Perhaps it also worth adding that there has been a welcome surge of interest in ancient animals in general. They have been particularly well-documented in ancient art where they have been categorized as narrative, symbolic, mimetic or decorative.[26] Animals have been discussed by their types in reference to literary texts (i.e. similes, fables), in relation to the gods and heroes, and associated with individual myths, cults, and even dance.[27] With regard to the "animal style", some scholars (such as John Boardman) have viewed them as no more than borrowings from Near Eastern arts that are best understood in terms of their formal, stylistic or technical qualities; while others (such as Tonio Hölscher) have interpreted them symbolically within a given cultural or ritual context.[28] Perhaps the truth lies somewhere in the middle, as so well-put recently by Alastair Harden: "an animal depicted will always evoke the specific species' qualities and the cultural relevance of that animal, and such depictions are a translation of cultural ideas about animal behaviour."[29] To be sure the animals of the "animal style" are not always shown in uninteresting, repetitive friezes, though a certain number of mundane cattle processions do make their appearance, as witnessed in Boeotian black-figure.[30] Regardless of origins, borrowings or inspirations, there is no shortage of heraldic groupings, stand-offs, and all-out fights represented amongst the available "animal style" evidence from the 7th century BC onwards.[31] Solo animals or those in greatly simplified compositions also occur, as is the case on a Chian chalice from Vulci, now in Würzburg, where a beautifully drawn bull shares the space with a small bird; or on a Middle Corinthian oinochoe in Berlin attributed to the White Bull Painter with its spot-lit, larger-than-life quadruped.[32] While the occasional wild goat leaps in the air, turns its head back, frolics or fights with a friend to break the otherwise tedious monotony, the potter and painter of an East Greek or Lydian pyxis (*Fig. 2*) takes both the material and visual possibilities of the "animal style" to the highest level by combining the usual painted elements with the plastic moulded ram's head protruding and turned in on itself.[33] Although it has been suggested that the head is a handle, it is also pos-

[24] Smith 2010, 5–8.
[25] Kluiver 2003, 39.
[26] See especially Calder 2012 and Harden 2014.

[27] In general: Campbell 2014; Smith 2021a. On dance: Lawler 1964, ch. 4, and Lonsdale 1982.
[28] Harden 2014, 24–25, for these perspectives.
[29] Harden 2014, 30.
[30] Kilinski 1990, 42 on rustic scenes in Boeotian black-figure. See the Eretrian black-figure plate (Heidelberg, Ruprecht-Karls-Universität 68/2); Boardman 1998, 216 ("rows of bulls"), and fig. 464.
[31] For example, von Hofsten (2007, 55) suggests that the popularity of the lion/bull fighting motif on Attic black-figure vases derives from its appearance on pedimental sculpture on the Acropolis in Athens, and for "butting bulls" on vases see p. 41.
[32] Boardman 1998, fig. 310 (Würzburg, Martin von Wagner-Museum L128) and fig. 382 (Berlin, Staatliche Museen, Antikensammlung F1117).
[33] Leaping goat: Rhodes, Archaeological Museum 14807; Coulié 2013, 162, fig. 153. Goat on hind legs: Brussels, Musées Royaux des Beaux-Arts A1960 (Cook & Dupont 1998, 34, fig. 8.2). Goats looking back: Paris, Musée du Louvre E 658 (Coulié 2013, 163, fig. 152b); Paris, Musée du Louvre E 659 (Boardman 1998, fig. 299). Frolicking/playing: London, British Museum 1907.12–1.679 (Cook & Dupont 1998, fig. 8.14). Fighting: Basel, Antikenmuseum (Amyx 1988, pl. 27.1b, Corinthian). For the ram's head pyxis see Coulié 2013, 186, fig. 180 (New York, Metropolitan Museum of Art 1977.11.3).

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Fig. 2. East Greek or Lydian Pyxis with ram's head handle. Late 6th century BC. New York, Metropolitan Museum of Art 1977.11.3. Photograph: Metropolitan Museum of Art, Open Access, Creative Commons Zero (CC0).

sible to see this object as the creation of a new zoomorphism that combines the concept of the bronze cauldron possessing animal-head attachments with a long-standing tradition of whole vessels in animal form designed to serve various ritual or everyday functions.

Up, down, and all around

When we turn our attention to sacrificial animals on vases either preparing for or being led to sacrifice, we find a somewhat limited range of head positions. At the same time, painters employ subtle movements of the head that reflect, on the one hand, behaviours appropriate to the situation and, on the other, an obvious familiarity with live animal movement. As is standard of much Greek vase-painting, nearly all of the animals, regardless of size or type, are shown, like human figures, in full or partial profile. The favourite pose visible amongst the extant evidence is the dignified bovine, often a bull, stopping or standing to the right with its head straight and its neck parallel or nearly parallel to the ground. Commonly shown in the scenes is an altar, a herm, or both, thus implying that the animal is moving compliantly towards a destination.[34] Such is the case on two examples, a Boeotian Cabirion vessel (a skyphos of mid-late 5th century BC), where the alleged victim is a large bull, and an Athenian black-figure neck-amphora of *c.* 500 BC, where the animal is a long-horned goat.[35] In each of these cases the head is positioned in a manner that shows off the horns, which are prominent, and in the case of the Boeotian image the exaggeration of this anatomical appendage is consistent with the unique and somewhat inflated style of the Cabirion Group of vases overall.[36] In some instances, the horns of an animal with its head straight are festooned. A good illustration of this can be seen on the bilingual amphora in Boston depicting on each side Herakles leading a bull and holding *obeloi*.[37] The same basic head position is indicated on a red-figure oinochoe in Laon (*Fig. 3*), where the horned creature faces a woman occupied with washing it, adorning it, or perhaps simply petting it.[38]

A second set of images demonstrates the animal extending its head forward as if to hasten the journey, break free from a

[34] See Versnel 2011, 248–352 and Zachari 2013, for the association of the altar and the herm on vases.

[35] van Straten 1995, V112, fig. 26 (Kassel, Staatliche Kunstsammlungen) and V52, fig. 24 (art market); *BAPD* 9485.

[36] Boardman 1998, 258. The curled horns on a red-figure ram are highlighted in black silhouette, thus enhancing their visibility; Gebauer 2002, 72–73, P 31, fig. 30 (Athens, National Archaeological Museum, Acropolis Collection 2.74, late 6th century BC).

[37] Boston, Museum of Fine Arts 99.538 (*c.* 530 BC); *BAPD* 200012; van Straten 1995, V378, 30–31; Caskey & Beazley 1963, 7–8, no. 115, pls. 65.1–2 and 67. For an Athenian red-figure example see the lekythos from Gela, Boston, Museum of Fine Arts 13.195; *BAPD* 200206; Caskey & Beazley 1931, 10–11, no. 14, pl. 4; my *Fig. 8*.

[38] Laon, Musée Archéologique Municipal 37.1044; *BAPD* 12352; van Straten 1995, V133, fig. 44; Smith 2021b, 133–134.

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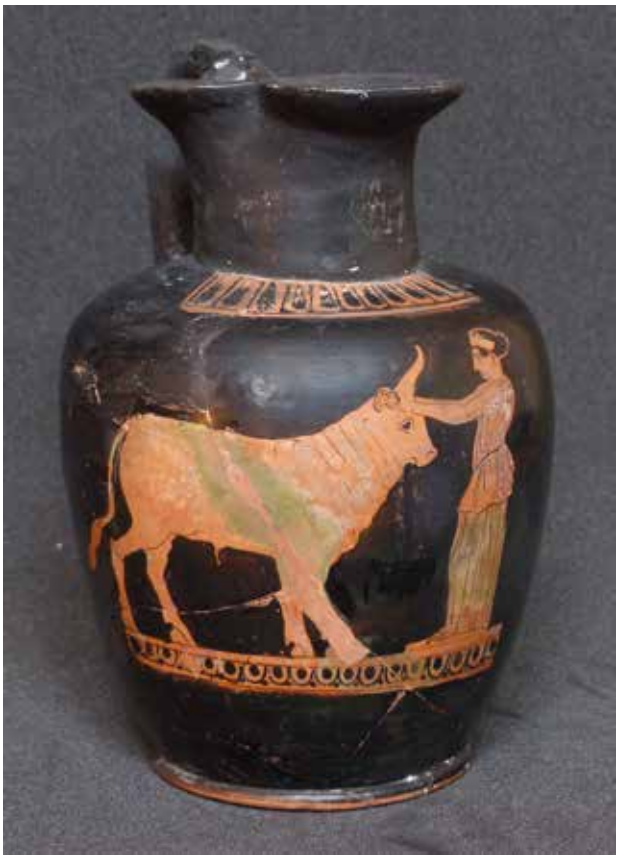

Fig. 3. Athenian red-figure oinochoe, c. *430 BC. Woman facing bull and touching its head. Laon, Musée Archéologique Municipal 37.1044. Photograph: Musée d'art et d'archéologie du Pays de Laon.*

human handler or perhaps smell and taste food. In such cases, the animal is often smaller, as seen on one side of a red-figure cup (*c.* 475–450 BC) in the Vatican where a ram is being encouraged by a bearded male who reaches towards it.[39] However, another version of this posture is demonstrated by a bull who stands in front of a draped and crowned female figure holding two torches (perhaps a priestess), on a red-figure bell-krater in Sicily attributed to the Eupolis Painter and dated *c.* 450 BC.[40] On this vase and on others, the animal is in walking motion, either passing or following a human whose attributes indicate cult activity, and who is situated beside or behind it.[41] Rather than purely stationary, these animals are leading with their heads towards a destination, and in some circumstances require extra restraint. This posture is evident inside the tondo of a red-figure cup in an American private collection where a youth holds a knife in one hand and hangs on to the horn of a high-spirited goat with the other.[42]

In another set of examples, the sacrificial animal is standing with its head tilted down (either a lot or a little) in order to eat or drink, obtain decoration to the horns or head, or indeed to receive the pending axe blow.[43] The last of these is shown on the body of the Caeretan hydria in Copenhagen dated *c.* 520 BC (*Fig. 4*), where the big beast is joined by male and female figures in a procession and is about to experience the fatal blow to the head.[44] We may also notice how the painter has related the axe to the horns, seeming to make contact between these two key elements, at least as witnessed from the outside viewer's perspective. Some animals also are portrayed with their heads inclined ever so slightly downwards while they are walking. This head position is found on an early 6th century BC Corinthian black-figure amphoriskos in Oslo, where a well-drawn bull tilts its head down as it moves between groups of humans holding baskets and playing music in what is often termed a *Frauenfest* scene.[45] On a much-discussed Athenian black-figure band-cup dated to the mid-6th century BC, three different animals of roughly the same size are being led in a crowded multi-figure procession to an altar, behind which stands the goddess Athena.[46] Both the bovine at the front and the sheep at the back are walking in a realistic manner, i.e. with their heads inclined slightly downward. Interestingly, the pair of pipers who follow behind them is well juxtaposed, shown by contrast with their heads exaggeratedly tilting up. Although some scholars have interpreted the lowered head of the animal, especially when approaching the altar, as an indication of "consent", "assent", or "willingness",[47] based on the difficulties of depicting motion in vase-painting and the range of head positions suggested here, such an idea seems difficult to support using vase imagery alone. Furthermore, it is arguable that vase-painters are better at showing animal (i.e. quad-

[39] Vatican, Museo Gregoriano Etrusco Vaticano 16508; *BAPD* 275400; van Straten 1995, V137, fig. 35; *ThesCRA* I, "Sacrifices", 97, no. 317.

[40] Syracuse, Museo Archeologico Regionale Paolo Orsi 22886; *BAPD* 214434; van Straten 1995, V97; *CVA Syracuse, Museo Archaeologico Nazionale* 1, III.I, pl. 17:1 (Italy 17, pl. 831).

[41] Cf. Bochum, Ruhr Universität, Kunstsammlungen S1174; *BAPD* 9024280; Gebauer 2002, P 26, 691, fig. 26.

[42] Winterthur, private collection, attributed to the Ambrosios Painter; *BAPD* 9132; Gebauer 2002, P 30, 72, fig. 29. See a similar scene on an Etruscan cornelian scarab (4th–3rd century BC); Boardman & Wagner 2018, 102, no. 90.

[43] van Straten 1995, 43–46; and *notes 37–38* (above). For the axe blow, see van Straten 1995, 107–109 and Bremmer 2007, 136.

[44] Copenhagen, Nationalmuseet 13567; van Straten 1995, V120, fig. 114.

[45] Oslo, University Museum of Enthography 6909; van Straten 1995, V117, fig. 16. On *Frauenfest* vases, see Smith 2010, 27, esp. n. 100 for bibliography.

[46] Paris, Stavros Niarchos Collection A031; *BAPD* 11106; van Straten 1995, V55, fig. 2; Smith 2016, 131, fig. 7.1 (drawing). Shear (2021, 135–138) connects the image to the Panathenaia.

[47] For a recent review of the evidence and interpretations, see Naiden 2013, ch. 3, esp. 83–90. See also Smith 2024.

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Fig. 4. Caeretan hydria. Last quarter 6th century BC. Detail of bull with its head tilted down. Copenhagen, Nationalmuseet 13567. Photograph: Museum, Creative Commons, BY-SA.

ruped) motion than human motion, especially when working in the black-figure technique.

Several vases demonstrate that animals in sacrificial situations sometimes moved in a rambunctious or energetic manner. The presence of such creatures encourages us again to ponder the ongoing debate about willing or resistant victims, and to question if painters are supplying this dichotomy in visual terms. One of the best-known illustrations of animal resistance in a detailed sacrificial context is found on the silhouette-style lekanis in the British Museum (*Fig. 5*) that includes no fewer than seven animals in its decorated frieze: two donkeys pulling a cart, two birds (one on the altar anticipating what's to come, the other a long-necked crane/heron on one side of the column), a snake on one side of the column, a standing bull with its head straight approaching the altar, a rowdy goat that turns it head backwards while being grabbed by the horn.[48] The imagery has been much-discussed and related to particular festivals, both in Athens and in Boeotia.[49] Leaving such issues aside, the behaviour of the two animals destined for sacrifice (if in fact they are both destined for sacrifice), and their powerful juxtaposition, can be determined based on their head positions: the assenting bull, the struggling goat.[50]

[48] London, British Museum B 80; *BAPD* 24390; van Straten 1995, V107, fig. 14.

[49] See Smith 2004, 17–18, with bibliography to date; *ThesCRA* I, "Processions", 12, no. 69 ("Athena Itonia at Koronea").

[50] van Straten (1987, 159–160) sees the two parts of the vase as unrelated.

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Fig. 5. Boeotian black-figure lekanis. Mid-6th century BC. Detail of "resistant" goat in procession. London, British Museum 1879,1004.1 (B 80). Photograph: © The Trustees of the British Museum, Creative Commons BY-NC-SA 4.0.

Although the animal with its head turned sharply back is not a regular detail of sacrificial iconography, it is an action sometimes performed by bovines, who appear either resistant or disinterested. Alternatively, the curious creature decorating a small black-figure hydria in Uppsala (*Fig. 6*) literally steps into the decorative panel and engages the viewer with a conspicuous frontal face.[51] The fact that the animal's horn overlaps the column and its hoof touches it (which itself touches the altar) is surely not accidental.[52] Naturally, the presence of the owl (also frontal-faced) has led to interpretations of the scene in relation to the worship of Athena.[53] Assuming that is the case, and the setting is the Athenian Acropolis, it would be tempting to see the animal as a bull and, in this instance, symbolizing Poseidon. A useful comparison with this most unusual vase is found on a neck-amphora of *c.* 500 BC now in Würzburg, where the god of the sea, wielding a fish and a trident in one hand, and ivy in the other, rides side-saddle on the back of a bull; and the presence of Dionysos on the opposite side of the same vessel has led to the description of Poseidon "approaching a festival of Dionysos."[54]

The same postures singled-out in the pre-death conditions of sacrifice may also be recognized in either daily life settings or those totally devoid of context, where the animals in question might or might not be connected to cultic activity. Consider the example of a red-figure pyxis lid in Oxford (*Fig. 7*), where the solitary animal stands spotlit against a black background with its head lowered.[55] One common posture, for bovines, though it is possibly exhibited in other situations by a sheep or a goat, is the head lowered and moving towards an enemy

[51] Uppsala, Museum Gustavianum P 41 (352); *BAPD* 330696; van Straten 1995, V50, fig. 5. The Theseus Painter is fond of cultic iconography; Borgers 2004, 112–113 and 163, no. 161, for the vase; cf. Laxander 2000, 17–18.

[52] Touch and overlap are similarly used by the other figures in the scene: i.e. the youth raises an arm towards the centre, perhaps in a gesture of prayer, and his fingers touch the owl; the nose of the sheep overlaps with and touches the foot of the owl and the altar. Cf. Smith 2021b, 127–128, on touch in religious images.

[53] See *note 51* (above) and Gebauer 2002, 81–86; Borgers 2004, 112 ("at the Altar of Athena"); and *LIMC* II (1984), 1010 s.v. Athena, no. 581, pl. 761 (H. Cassimatis).

[54] Würzburg, Martin von Wagner-Museum L194; *BAPD* 405; *LIMC* IV (1988), 463 s.v. Poseidon, no. 160, pl. 366 (E. Simon); and Simon 2014, 46, for the interpretation and quote.

[55] Oxford, Ashmolean Museum 1927.4472; *BAPD* 12758; *CVA Oxford, Ashmolean Museum* 2, III I, 109, pls. 52:9 and 65:9 (Great Britain 9, pls. 416 and 429).

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Fig. 6. Athenian black-figure hydria. Theseus Painter, c. 500 BC. Frontal bull. Uppsala, Museum Gustavianum P 41 (352). Photograph: Gustavianum, Uppsala University Museum.

(often a ferocious feline) in an act of aggression or defence. An unattributed Athenian black-figure lip-cup (mid-6th century BC) demonstrates on both sides the bull who is seemingly fearless as it approaches and then fights-off a growling lion using his horns.[56] While an early/mid-6th century BC Athenian black-figure dinos in Brussels portrays a goat and a sheep in separate friezes sparring with large felines in the identical manner.[57] In other instances, the bull seems defiant or quite simply to be running away from, in at least one case, a human enemy (perhaps Theseus or Herakles) at full speed, as on one side of a cup by Oltos in Madrid.[58] Animals take centre stage on an Athenian black-figure oinochoe of the early 5th century BC attributed to the Gela Painter and now in Munich, where we see bovines, some, if not all, horned, surrounding an altar.[59] Although it is difficult for us to determine exactly what theme the painter intended, the vase has been connected to a group with similar iconography whose scenes have been related specifically to the Bouphonia, or "ox slaying", held annually on the Acropolis as part of the Dipolieia (cf. Paus. 1.28.10–11).[60] For our purposes, however, what is striking on the Munich vase is the sequence of recognizable head positions being demonstrated by the assembled bovine group: straight ahead, head forward, head down, head turned back.

[56] Christchurch, University of Canterbury 34.55; *BAPD* 6700; *CVA New Zealand* 1, pl. 28:1–4 (New Zealand 1, pl. 28).

[57] Brussels, Musées Royaux des Beaux-Arts R222; *BAPD* 1429; *CVA Brussels, Musées Royaux du Cinquantenaire* 1, III H d, pl. 2:1c (Belgium 1, pl. 13).

[58] For the Oltos cup (Madrid, Museo Arqueológico Nacional L151), see *BAPD* 200443; *LIMC* VII (1995), 936 s.v. Theseus, no. 176 ("possibly Theseus or Herakles"), pl. 654 (J. Neils); *CVA Madrid, Museo Arqueológico Nacional* 2, pls. 1:3b and 5:1 (Spain 2, pl. 58 and 62) ("*Thésée poursuivant le taureau de Marathon*"). For a defiant bull see both sides of the Athenian black-figure Siana Cup (London, British Museum B 384), attributed to the Griffin-Bird Painter; *BAPD* 300684; *CVA London, British Museum* 2, III H e, pl. 10:5 (Great Britain 2, pl. 68). Cf. Warden 2004, 91–93, no. 12, where the bull is in a similar position with its head down, but being hunted (described: "sacrificial animal as prey").

[59] Munich, Antikensammlungen 1824 (J 1335); *BAPD* 330554; van Straten 1995, 199, V33, fig. 55.

[60] On this group of vases see van Straten 1995, 51–52, esp. 129 for previous bibliography; Gebauer 2002, 196–197, who discusses the ritual and the form of the altar and McInerney 2010, 115–116. See further Shapiro 1989, 30, n. 94 and Georgoudi 2005, 134–138.

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Fig. 7. Athenian red-figure pyxis lid. Second half of the 5th century BC. Bull. Oxford, Ashmolean Museum 1927.4472. Drawing: Dan Weiss.

Animal, human, object

Having established the various ways that horned animal heads are portrayed by Greek vase-painters in pre-death sacrificial iconography, it is possible to explore some other key aspects of the scenes. How does the presence of other animals, humans, or objects have an impact on the vase-painter's visual articulation of horns and head? And, how might such additional elements lend a more performative air to the proceedings?[61] Again, when we look back to earlier "animal style" decoration, we observe confronting bulls, as on a Protocorinthian black-figure oinochoe of *c.* 625 BC, where the fuming pair is antithetically arranged in the midst of a multi-figure animal frieze.[62] Each bull lowers its head towards the other with horns pointing forward, and feelings of aggression and competition are clearly in evidence.[63] Such hostility on the part of the animal is best paralleled in mythological iconography, especially on vases where Herakles or Theseus tries to capture the bull and the animal by nature tries to resist.[64] In sacrificial scenes with multiples of the same beast, the animals are either moving or standing in the same direction, and have identical head, neck and body positions, as evidenced by the magnificent cows with prominent udders on a late 6th century BC red-figure lekythos in Boston attributed to the Gales Painter (*Fig. 8*).[65] Or, the animals, often cattle, while being adorned for the sacrifice, are represented standing in opposite directions with one or two humans between them, and either face the humans, face each other or look away.[66] The diversity available makes each of the images in a sense unique and adds to the realism, as opposed to the idealism, of the occasion. In actuality, these are living, breathing creatures who move, misbehave, and make noise. Walking in a pair or a group, the animals are envisioned by the painters as uniform, and this same uniformity is visible on the Athenian black-figure band-cup mentioned earlier. On some vases, however, as an animal is being bedecked, it is required to stand still with its head tilted down, perhaps with the aid of food or drink; while those who await horn decoration may be shown looking around as if distracted.[67]

When humans interact with the animals in the relevant scenes, be they decorating, leading or handling them, the iconography and the position of the head is even more varied. The question then is how and when do the humans figures on vases touch the animals by the horns or on the head, and where are humans and animals placed in relation to one another? Are their encounters merely indications of the variety of ways to show human control over these hapless, doomed creatures? Before looking at the examples that might hold the answers to such questions, it is helpful to consider some mythological figures who interact with horned animals on Greek vases: in part because the evidence is far more abundant, if repetitive; and in part to determine if mythological models or narrative references were being sought out and employed by the painters of sacrifice performed by mortals. Associations between animals and the divine are far beyond our present scope, but it is fair to say that individual animals connected to the Olympian gods

[61] For sacrifice as performance, see Jameson 2014, 272 ("visual and dramatic"); Pilz 2011 and Smith 2016, 134–139, for vase iconography.
[62] New York, Metropolitan Museum of Art 1972.118.38, attributed to the Chigi Group; Mertens 2010, 60–61, no. 8.
[63] A great deal is written on bull aggression and other behaviours. For example, an aggressive bull will turn his body perpendicular to a challenger to display his full height and length, and aggression is expressed by bunting or striking a challenger with the head. See in general Houpt 2011, 23–26 (cattle, sheep, goats) and 30–34, on aggression; Albright & Arave 1997 and Grandin 1989; 1992, on behaviour during restraint.
[64] *LIMC* V (1992), 60–67 s.v. Herakles, esp. 61–62, nos. 2326–2339 for capturing and tying the bull (J. Boardman); and *LIMC* VII (1995) 936–939 s.v. Theseus, esp. nos. 186–188 ("hobbling") (J. Neils). Which hero is intended is not always made obvious by the iconography; cf. *note 58* (above, Madrid cup). See also Stafford 2012, 39.
[65] Boston, Museum of Fine Arts 13.195, signed by the potter "Gales"; *BAPD* 200206; van Straten 1995, 206–207, V74, fig. 17; Caskey & Beazley 1931, no. 14, pl. 4 (*note 37*, above).
[66] See *note 43* (above).
[67] Cf. van Straten 1995, 45–46 ("watering the bull"). A "distracted" bull appears to the right of the altar on Munich 1824; *note 59* (above).

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and with mythical heroes regularly serve as attributes in vase-painting and in ancient Greek art in general.[68]

A common observation to be made about animals in mythological iconography on vases is that they are often shown to be highly active and greatly animated; they seem angry or happy, spritely or agitated, to the point of exaggeration.[69] This is particularly the case when a specific story is being portrayed. That is not to say that there are no cases of what might be considered intense resistance by animals on vases, but they do seem to be more the exception than the norm.[70] Consider the red-figure cup by Oltos cited earlier where the bull runs at full speed away from a man identified as Herakles or Theseus.[71] The vase painters seem well aware of differences inherent in showing a mythological hero's solo encounter with the bull and a real human encounter with a bull. The hero uses his super-human semi-divine strength to contain the animal by any means possible. But unlike the clowns and cowboys of the American rodeo (unless "bulldogging"), our Greek hero is not afraid to grab the bull directly by the horns or even to step directly on them.[72] Clearly, the priority of the painter, here as elsewhere, is the unbelievable spectacle of the Greek hero *extraordinaire*, the larger than life figure who slays a lion or captures a bull with his bare hands. In such scenes, furthermore, the animal is a prime component, indeed an indispensable element of the story, and as such receives a generous amount of attention. The same is true of Theseus on vases in his encounters with the Cretan bull, or with the Minotaur, the hybrid monster of Knossos, who he routinely grabs by the horn with one hand while wielding his sword in the other;[73] or of Europa who steadies herself on the back of or follows alongside Zeus in bull form, by holding his horn with one hand and on occasion his tail with the other.[74] In these particular myths, the horn-grabbing (regardless of any implied or overt symbolism) is a detail so elemental to the imagery that it

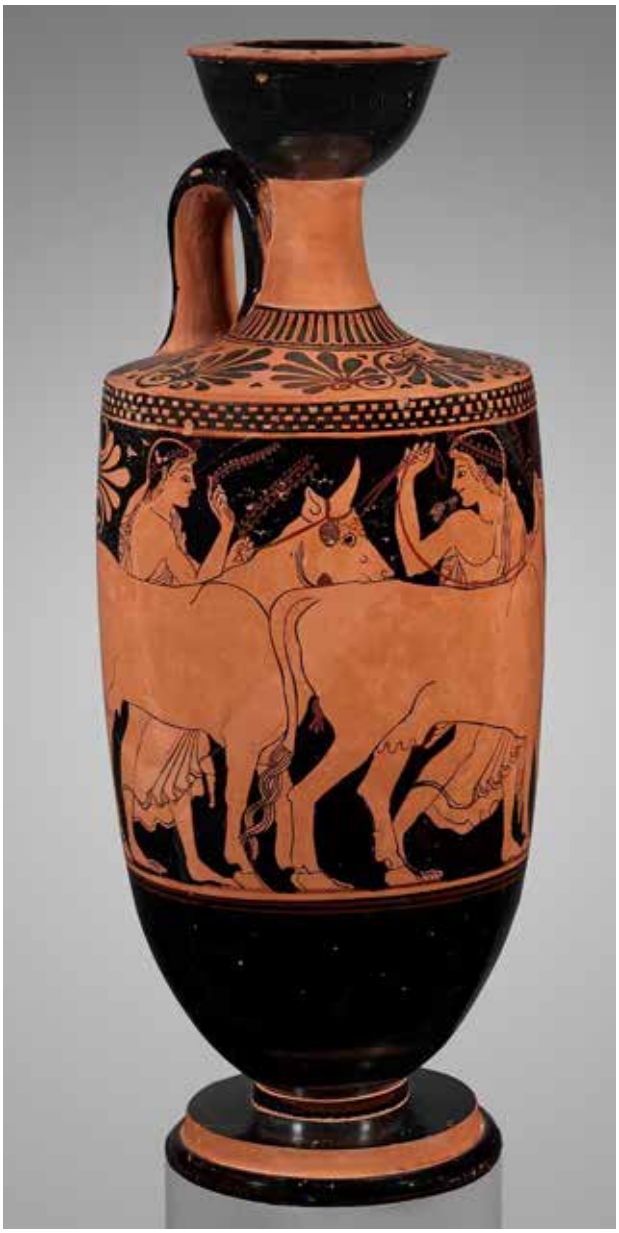

Fig. 8. Athenian red-figure lekythos, by the Gales Painter. Bovines in procession. Late 6th century BC. Boston, Museum of Fine Arts 13.195. Photograph: Museum of Fine Arts, Boston. Bartlett Collection—Museum purchase with funds from the Francis Bartlett Donation of 1912.

is found in other artistic media contemporary with the vases.[75] Other horn-grabbers include satyrs or maenads messing about with goats (riding, chasing, dancing), Herakles who removes a horn from Acheloos, and Artemis in her guise as Potnia

[68] On animals and gods, including gods worshipped as bulls (i.e. Zeus, Poseidon, Dionysos), see McInerney 2010, 112–119. For the examples in art: Carpenter 1991; Simon 2021.

[69] For mythological subjects, see Gebauer 2002, 489–499, and figs. 122, 124, 141, 143–145, 155 (all red-figure) and van Straten 1995, 30–31.

[70] Cf. e.g. a late 5th century BC Athenian red-figure bell-krater (New York, Metropolitan Museum of Art 56.171.49), where the bull is particularly animated in a scene identified as the Lampadedromia: *BAPD* 217591; van Straten 1995, 209, V91, fig. 54; Naiden 2013, 66–67, fig. 2.6.

[71] See *note 58* (above).

[72] See *note 64* (above); and Arluke & Bogdan 2013, esp. 25–27 on rodeo clowns, and 22–23, fig. 2.8 on "bulldogging", which involves wrestling a steer to the ground while twisting its neck and holding its horns.

[73] See e.g. *LIMC* VII (1995), s.v. Theseus, nos. 233–234, 240–241, and 238 (holds the snout) (J. Neils); cf. Shapiro 1989, 147, pl. 66b and Carpenter 1991, fig. 247 (holds the neck).

[74] Carpenter 1991, 56–57; *LIMC* IV (1988), 76–92 s.v. Europe (M. Robertson).

[75] Cf. e.g. Harden 2014, 39–40, fig. 2.3 (Europa on a gem; *c.* 480 BC); Carpenter 1991, fig. 246, right (Theseus on shield band relief, *c.* 560 BC).

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Fig. 9. Athenian red-figure cup fragments. Kleomelos Painter, c. *510–500 BC. Older man handling stubborn goat. Malibu, J. Paul Getty Museum 1995.14 (on loan from Trier University). Photograph: Digital image courtesy of the Getty's Open Content Program.*

Theron.[76] Second only to the horn-grabbers in the mythological repertoire of human-animal encounters are the "huggers", who take the four-legged creature by the head, neck, or horn using one or both hands, perhaps using a hold familiar from wrestling. A male figure identified as Herakles is represented in the tondo of a Laconian cup in the Manner of the Arkesilas Painter (*c.* 550 BC), where the hero embraces the bull with both arms around its neck.[77] On the inside of an Athenian black-figure cup with Theseus and Minotaur (both named by inscriptions), the hero uses a one-armed version of this gesture to get a firmer grip on the beast.[78] On one side of an Athenian black-figure skyphos in Paris, Athena accompanies the hero, either Herakles or Theseus, who leans into the bull with both arms as the animal strikes a classic defensive posture, with head down, horns forward and one front leg drawn back.[79]

Returning to the human-animal interactions in images of sacrifice, a number of the extant pre-death scenes focus on the procession towards or the gathering around the altar. Sometimes the animal is held in place with a rope or lead that looks as if it is tied directly to the horn—a situation visible in both black- and red-figure.[80] On other vases a human handler holds the animal by the body and/or the neck on one or both sides, in such a way that indicates familiarity with safe animal-handling.[81] Several red-figure vases, which might include mortal or mythical participants in the scenes, show a sheep or goat being held in place at the altar by a boy, while additional male figures conduct ritual activities related to the sacrifice. On the red-figure krater from Agrigento attributed to the Kleophon Painter and dated *c.* 420 BC, a boy in the scene holds onto a goat with both hands on either side of its neck, perhaps to demonstrate a more modest version of the mythological hugger (restraint) position.[82]

Fairly common amongst the evidence on vases is the action of grabbing or holding the horns. We have already noticed this detail with respect to various iconographic moments and seen that it is commonly practiced by mythological figures. It can be documented using different types of horned animals at different moments in the proceedings: being decorated, approaching the altar, waiting at the altar.[83] François Lissarrague has pointed out that, in scenes where an "ephebe" is controlling the animal by the horns or lifting it up on the shoulders, it is the "athletic strength of the youths that is being displayed and celebrated."[84] Horn-grabbing by necessity is a forceful gesture, and is evident on the inside of a fragmentary red-figure cup currently at the Getty (*Fig. 9*) where an older man with a white beard and hair musters all his might to hang on to a stubborn goat: a less than willing victim who may or may not be destined for the altar in any case.[85]

[76] See Lissarrague 2013, 119, fig. 96, and 123, fig. 101 (horn and leg); *LIMC* V (1992), 114 s.v. Herakles (J. Boardman); *note 3* (above), for Acheloos; and *LIMC* II (1984), 624–628 s.v. Artemis (L. Kahlil), for examples of the many methods the goddess uses to contain animals.

[77] New York, Metropolitan Museum of Art 591.5; *LIMC* V (1992), 61 s.v. Herakles no. 2317 (J. Boardman).

[78] Toledo, Museum of Art 58.70 (Little Master Cup); *BAPD* 350732; *LIMC* VI (1992), 575 s.v. Minotauros no. 9 (S. Woodford).

[79] Paris, Musée du Louvre F 475; *BAPD* 331572; *ABV* 558.471.

[80] For example, an Athenian black-figure skyphos, attributed to the Theseus Painter (Stuttgart, Württembergisches Landesmuseum 4.89 [KAS 74]); *BAPD* 351553; Gebauer 2002, 124, Pv 90, fig. 80 (top), and an Athenian red-figure krater, from Spina (Ferrara, Museo Archeologico Nazionale 20.311 [T416 B VP]), attributed to the Kleophon Painter (*c.* 430 BC); *BAPD* 215161; Gebauer 2002, 109–110, P 59, fig. 59 (cf. figs. 60–61).

[81] An extreme case of using the head- or horn-tied rope is found on the mid-6th century BC black-figure amphora in Viterbo; *BAPD* 10600; Gebauer 2002, 257–259, S 1, fig. 134, and 285–288; van Straten 1995, 219, V141, fig. 115; Smith 2021b, 135–136, fig. 81. On the Athenian band-cup only the bull is on the lead, while the other two animals walk freely; see *note 46* (above). See further Naiden 2013, 66–67, and n. 167.

[82] Agrigento, Museo Archeologico Regionale 4688; *BAPD* 30321; Gebauer 2002, 217–219, A 3, fig. 113; van Straten 1995, 216, V127, fig. 30 (detail).

[83] Being decorated: van Straten 1995, figs. 44, 45. Approaching/waiting: van Straten 1995, figs. 21 (perhaps), 24, 27, 35, 42 and 47.

[84] Lissarrague 2012, 566. Cf. Diggle 2004, 480 ("ephebes lifting bull"); McInerney 2010, 15; Boardman & Wagner 2018, 19, no. 12 (late 6th century BC cornelian scarab).

[85] Malibu, J. Paul Getty Museum 1995.14 (on loan from Trier University); *BAPD* 13362; Gebauer 2002, 119–120, Pv 74, fig. 75 (Kleomelos Painter, *c.* 510–500 BC).

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One final aspect of this imagery to single out, and one that draws attention to the head and horns of the sacrificial beasts, is what can be termed "visual clusters". The Getty cup (*Fig. 9*) provides an instructive example, where horns, hands, and stick (or *aulos*?) converge and, thus, draw the viewer to a precise location.[86] On a number of other vases, activities and objects (both animate and inanimate) meet, or cluster, right around the area of the animal's head. In black-figure this tendency is visible, for example, on a late 6th century BC black-figure neck-amphora, formerly on the art market, and on the red-figure lekythos in Boston of similar date, attributed to the Gales Painter (*Fig. 8*).[87] These vases serve as reminders that the horned head is visually central and that, at a variety of different moments, the head and horns are playing an essential role in the ongoing proceedings, both literally and nonliterally, both ritually and visually. Indeed, on that same red-figure lekythos the visual mirroring of the two bovines, with their heads raised and their horns erect, by a woman in the same procession who holds a high-handled (or "three-horned") basket (*kanoun*) atop her head is surely more than coincidence. The positioning of this essential ritual object in other scenes (i.e. directly above the altar)—not to mention its invisible contents (seeds and knife)—is a topic that might merit further exploration.[88]

Coda: head vases

Beginning with the "animal style" we have been able to attest not only the existence of the same horned (and indeed unhorned) sacrificial animals found in the vases produced during the 6th and 5th centuries BC in Athens and elsewhere, but also the same head positions being used. Considering the limitations of Greek vase-painting as an art-form, and in particular the difficulty of showing figures in motion, we have further explored some human-animal interactions in relevant scenes of myth and amongst the everyday sacrificial imagery. We have noted the various ways that the painter draws attention to the heads and horns of an animal victim and the visual methods showing human containment and control, some very likely based on real practices and live observation.

By way of conclusion, it seems irresistible to introduce an additional category of evidence, which is compelling in its own way: the animal-head vases, sometimes called rhyta (singular: rhyton). These zoomorphic objects, many of which take the potted form of horned creatures, have been well-studied by Herbert Hoffman and more recently by Susanne Ebbinghaus.[89] They have been subjected to a variety of interpretations, from the purely decorative and sculptural to the overtly symbolic and ritually important; they have been connected to Dionysos and barbarian customs, associated with heroic feasting, sympotic drinking, death, funerary rituals, and hero cults, described as emblematic of aristocratic male values or as presentations of sacrificial victims.[90] Regardless of functions and meanings, such plastic vessels—which combine mould-made and wheel-thrown elements—certainly add an overtly tactile, three-dimensional element to the current discussion of horned heads, vases and sacrifice. One compelling case is the Attic ram's-head rhyton bearing the potter's signature "Charinos", and currently housed in the Virginia Museum of Fine Arts (*Fig. 10*).[91] The object is dated *c.* 480 BC and has been studied by Robert Guy who has suggested that the red-figure decoration on the rim of the vessel (and thus atop the ram's head) highlights the eponymous heroes of Athens dining together—their "heroic status" confirmed by the kantharoi they hold in their hands, drinking-vessels not unrelated to the ram-shaped vessel itself; alternatively, the reclining drinkers belong to the standard sympotic setting in which such an elaborate vessel might have been used.[92] Furthermore, animal-head vessels such as this one, might also be considered from the sacrificial perspective, as substitutes for or symbols of live animals. According to ancient sources, rams were the "sacrificial animal par excellence for heroes", and this very object has recently been cited to illustrate this complex of connections.[93]

In the introduction to the book *Animals into art*, Howard Morphy states: "The way an animal is represented tells us something about how the animal is conceived and understood, for example through the parts that are selected to represent it or the context in which it is understood."[94] By examining heads and horns in scenes of sacrifice on ancient Greek vases, we have indeed observed some of the ways that painters and viewers "conceived and understood" such creatures in their specific setting in a visual sense, and how these

[86] See previous note.
[87] van Straten 1995, 202, V52, fig. 24; Gebauer 2002, 73, P 32, fig. 73; and *note 35*, above. See *note 37* (above), for the Boston lekythos. On visual clustering in sacrificial imagery see now Smith 2021b, 127–139, 314.
[88] Cf. e.g. Lissarrague 2012, 566 ("three-horned"), and 567, fig. 29.1 (Naples, Museo Archeologico Nazionale 127926); *BAPD* 206290. See also van Straten 1995, 162–164; Gebauer 2002, 500–509 and Dillon 2001, 37–41, 60–63.
[89] Hoffmann 1997, with bibliography; Ebbinghaus 2008. For horned animal rhyta of various dates in other media: Lapatin 2015, nos. 73 (stag), 75 (bull) and 129 (gazelle).
[90] See Lissarrague 1995, on the sympotic setting for such vessels, and Calder 2012, 31–32, esp. n. 466, for symbolic victims; cf. Naiden 2013, 122–128.
[91] Richmond, Virginia Museum of Fine Arts 79.100; *BAPD* 7537; Guy 1981.
[92] See previous note; Lissarrague 1990, 57–58, for the sympotic setting, and Topper 2012, 94–95, for the representation of a similar vessel being held by a Persian banqueter.
[93] Ebbinghaus 2018, 196–199, 258.
[94] Morphy 1989, 2–3.

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Fig. 10. Athenian red-figure rhyton in the shape of a ram's head. Signed by Charinos, c. 480 BC. Richmond, Virginia Museum of Fine Arts 79.100. Photograph: Museum, Creative Commons BY-NC.

parts relate to other elements of the scene. Although there is a great deal of variety in the iconography, where the relevant sheep, goats, and cattle are concerned, even a cursory glance at the evidence reveals that certain distinctions were being made by painters (and perhaps other artists) to differentiate cultic rituals from mythological stories or dramatic performances, as well as from the often passive/submissive versus active/energetic roles of animals therein. A more detailed look at positions of the head suggests observance of live animal behaviours (e.g. aggression) and movements (e.g. walking in groups, standing alone, fighting). Such iconographic trends indicate an awareness of these differences, both visually and psychologically, and the importance of articulating and distinguishing various situations in art. That being said, animal imagery, both within the context of sacrifice and outside it, belongs to a rich and long tradition in Greek vase-painting, as do the animal-shaped head-vases. Although heads and horns may only tell part of the story, viewing them in isolation—as the "parts that are selected"—provides a window, both real and imagined, into the complexities of sacrificial imagery and reminds us of the many questions that remain as yet unanswered about the relationship between ancient Greek art, animals, and religion.

TYLER JO SMITH
Department of Art
University of Virginia
tjs6e@virginia.edu

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VASILIKI ZACHARI

7. Bucrane stylisé

Au-delà de l'ornementalité

Abstract

The purpose of this paper is to analyze the close relation between the altar and the *bucranium* in order to explore the Greek sacrificial animal, and more precisely its head, from an iconographical point of view. *Bucranium*, meaning literary the ox's skull in ancient Greek, is a term widely used to describe an ornamental motif attested in architecture and more abundantly on marble cylindrical altars dating from the 3rd century BC and on. Evidence from Attic vase paintings of the 5th century BC representing *bucrania* casts doubt upon their decorative use and interpretation and opens a debate about their role and meaning. By analyzing images where the animal's head is depicted before and after sacrifice, as well as the images where a *bucranium* is combined with an altar, or not, the present article will shed more light on the treatment and uses of the head of sacrificial animals on vases, as well as on the ways Attic painters make of the *bucranium* a meaningful symbol of sacrifice and time.*

Keywords: Attic vases, iconography, bucranium, head, skull, defleshing, altar, horns, butchery, decoration, ritual time, visual schema, visual sign

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Dans les études sur l'art, il semble être devenu un lieu commun de constater que le bucrane, c'est-à-dire la tête dépouillée de l'animal, est un élément ornemental par excellence. Motif transversal aux aires géographiques et chronologiques très vastes, en Mésopotamie, en Égypte et dans le monde grec depuis la période minoenne, mais aussi pendant la période romaine et la Renaissance, en allant jusqu'au XIX[e] s., en Europe comme aux États-Unis, le bucrane « a passé les monts et les mers ».[1] Il est répandu sur plusieurs supports d'images de petite à grande échelle, comme les monnaies,[2] les timbres amphoriques[3] et la céramique, mais aussi l'architecture profane et sacrée. Dans la dernière catégorie se distinguent les autels monolithes de forme cylindrique destinés au culte de dieux et de défunts (*Fig. 1*).[4] Ils sont abondamment produits à Délos depuis la période hellénistique et dépassent vite les frontières cycladiques pour se diffuser également dans d'autres régions de la mer Égée, en Asie Mineure et même au-delà du monde grec. Ces monuments ont suscité l'intérêt des voyageurs lors

* Le colloque *From snout to tail* fut une excellente occasion de revenir sur plusieurs aspects de l'animal sacrificiel grâce aux échanges fructueux entre tou.te.s les participant.e.s. Ces échanges ont été rendus possibles grâce à une organisation remarquable orchestrée par Gunnel Ekroth et Jan-Mathieu Carbon. Je leur adresse en outre mes plus vifs remerciements pour leurs précieux commentaires et leur grande indulgence. De même, je voudrais exprimer ici toute ma gratitude à Hélène Collard, Françoise Frontisi-Ducroux, Thomas Golsenne, Yannis Kalliontzis, François Lissarrague, Isabelle Warin et Polymnia Zagefka qui ont relu ce texte et m'ont orienté en répondant à mes questions. Enfin, une étude iconographique ne va pas de soi sans l'appui des musées, des institutions et des personnes qui nous fournissent les images de leurs archives. Pour leur aide indispensable, je remercie tous ceux qui m'ont accordé gracieusement le droit d'utiliser des photographies provenant de leur fonds. Avec l'espoir que les conditions d'accès aux images s'améliorent afin d'en faire bénéficier la communauté scientifique.

[1] Passepont 1896, 86. Plusieurs architectes de la Renaissance ont étudié des ruines de la période romaine lors de leurs études de terrain, comme Palladio, dont le *Traité sur l'Architecture* a eu une influence considérable en Europe et notamment sur l'architecture du XVIII[e] s. au Royaume-Uni avec le néo-classicisme. De même, de l'autre côté de l'Atlantique, les architectes de la Renaissance américaine s'inspirent de ce motif, mais ils l'utilisent moins fréquemment. Sur le bucrane comme ornement voir Passepont 1896.

[2] Par exemple sur une monnaie de bronze, Assos 1970.142.358 (collection American Numismatic Society) http://numismatics.org/collection/1970.142.358

[3] Par exemple les timbres amphoriques de Knidos (Érétrie, Musée Archéologique 19981).

[4] Pour les autels décorés de bucranes : Napp 1933 ; Deonna 1938, 380–383 ; Yavis 1949, 148–152 et 159–160 ; Fraser 1977, 25–33 ; Righetti 1982 ; Le Dinahet 1985 ; Berges 1986 ; Le Dinahet 1991. Il existe également des autels décorés de têtes de taureaux qui sont destinés plus précisément à commémorer un sacrifice en l'honneur de la déesse Cybèle. Sur les autels tauroboliques : Vermaseren 1986 ; Turcan 1992.

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Fig. 1. Autel en marbre, marché des Antiquités, 1er–2e s. après J.-C.
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de leurs expéditions en Grèce et se trouvent ainsi aujourd'hui dans de nombreuses collections européennes.[5]

La décoration des autels aux bucranes ne manque pas de diversité. Elle varie du minimalisme jusqu'aux créations plus somptueuses : guirlandes et bucranes en relief, alternant avec d'autres objets rituels, comme les phiales, les couronnes et les *cornucopiae*.[6] Dans certains cas, le bucrane est remplacé par une tête de bœuf ou de taureau et plus rarement par d'autres têtes ou crânes d'animaux cornus, comme le bélier ou le cervidé.[7] L'originalité va jusqu'au point de substituer au bucrane une tête anthropomorphe (un masque de Dionysos, un portrait d'Asclépios ou d'Apollon) ou même une figure entière qui porte la guirlande (Ménades, Victoires ailées, Érotes). Innovation de la période hellénistique sans autre précédent connu, le succès de l'association de l'autel avec le bucrane atteint son apogée avec l'*Ara Pacis*, dont le riche décor fut une source d'inspiration pour de nombreuses créations de la période romaine. Une question se pose inévitablement : l'association du bucrane avec l'autel est-elle purement d'ordre ornemental ?

La tendance à considérer un motif comme décoratif porte une certaine connotation négative qui lui attribue par conséquent une importance secondaire.[8] Déjà Platon est le premier à avoir considéré l'ornement comme un simple agrément en le catégorisant dans le domaine de l'inutile.[9] Cette définition devrait certes être nuancée. L'ornement est omniprésent sur les bâtiments, les vêtements, la parure, les tatouages, etc. Tout peut être ornemental, sans néanmoins devenir insignifiant ou dépourvu d'utilité et de sens. L'assemblage du bucrane avec l'autel n'est pas anodin et met en cause cet a priori concernant l'inutilité de l'ornement. Il sera question dans cet article d'interroger ce motif présent dans l'art grec et la combinaison avec l'autel afin d'aller au-delà de cette interprétation. Le bucrane n'est pas un simple élément décoratif et il ne porte aucun aspect prophylactique évident ;[10] sa présence sur l'autel semble évoquer plutôt des actes rituels qui ont lieu à cet endroit, plus précisément le sacrifice, comme le souligne également l'alternance avec d'autres éléments à buts cultuels (phiale etc). L'intention de cet article est d'une part de retracer les origines de la pratique et de l'autre ce qui pourrait être sa raison d'être et

[5] Par exemple : Berlin, Musée de Pergame (voir Fraser 1977, pl. 71d) ; Londres, British Museum (voir Fraser 1977, pl. 72a–b) ; Paris, Musée du Louvre 2904. L'attestation la plus étonnante se trouve au cimetière du Père-Lachaise à Paris, où deux autels à bucranes constituent le monument funéraire de la tombe de Théodore Morawski et de son épouse Mme Morawski, née Bory de Saint-Vincent. Son frère, George-Marie Bory de Saint-Vincent, a apporté ces monuments de Grèce lors de sa direction de la commission scientifique de l'exploration de Morée entre 1829–1830 dans le but de décorer son tombeau (Le Dinahet-Couilloud 1975).

[6] Sur l'architecture monumentale, on rencontre aussi le trépied, comme par exemple au théâtre de Délos. Pour le bucrane dans l'architecture : Frazer 1990 ; McCredie *et al.* 1992 ; Schmidt-Dounas 1994 ; Webb 1996, 29–30 ; Umholtz 2008 ; Vlachou 2009, 147–169.

[7] Les autels décorés de crânes et de bois de cerfs sont attestés par quelques rares exemples en Béotie, à Orchomène et Chéronée, les deux consacrés à Sarapis et Isis, mais aussi à Pergame (Berlin, Fraser 1977, pl. 71c), à Cos, ainsi qu'en Anatolie (communication orale d'Alice Mouton). Pour une analyse du sacrifice de cervidés à Isis et de ces autels voir : Chandezon 2011. Pour le sacrifice de cerfs en l'honneur d'Artémis : Hermary *et al.* 2004, 73–76. Plutôt que de les considérer comme des animaux sauvages, offerts comme gibier de la chasse aux dieux, les cervidés étaient enlevés dans des endroits à proximité du sanctuaire afin d'être sacrifiés selon le rituel suivi pour les autres animaux, comme il est attesté également par les études en archéozoologie (Nobis 1976–1977, 292 ; Boessneck & von den Driesch 1988, 41). Le sacrifice de cervidés, comme pour les bœufs, était une offrande couteuse que seules les personnes ayant les moyens pouvaient faire, tandis que le sacrifice de plus petits animaux, comme les coqs, les oies et les pintades était courant pour les personnes moins aisées. Le critère social lors des sacrifices en Grèce ancienne est manifeste, puisqu'il était déterminé par les moyens du sacrificateur (Chandezon 2011, 178). Sur les cervidés chassés et offerts dans les sanctuaires d'Artémis : Larson 2017.

[8] Sur une mise en question de l'ornementalité comme synonyme de marginalité : Sauron 2000 ; Golsenne 2012.

[9] Pl. *Plt.* 288c.

[10] Deonna 1938, 381.

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sa signification, en l'occurrence selon l'évidence fournie par les images disposées sur les vases attiques à figures rouges montrant des actes rituels. En étudiant les contextes figuratifs dans lesquels le bucrane est représenté et son rôle dans ces images, nous allons explorer et dévoiler l'usage d'une partie de l'animal sacrificiel, plus précisément sa tête, du point de vue iconographique et selon une approche d'anthropologie historique.

Dans le présent article, nous reviendrons tout d'abord sur la terminologie et la façon de représenter le bucrane sur la céramique attique à partir des sources écrites et iconographiques, que nous analyserons à la lumière des données archéozoologiques. Ensuite, nous nous focaliserons sur les images de vases afin d'étudier le traitement de la tête avant et après le sacrifice. Puis, nous nous concentrerons sur les associations figuratives du bucrane avec l'autel et les contextes rituels dans lesquels il est présent. Nous examinerons également des cas qui semblent plus exceptionnels, puisque le bucrane figure dans des scènes où l'autel est absent. Il sera enfin question de sa signification selon son emplacement dans l'image et sur le vase.

Les mots et les choses

Le terme bucrane entre dans la langue française au début du XIX^{e} s. pour désigner le décor sculpté composé d'une tête de bœuf avec des cornes dépouillée de la chair, l'ensemble orné de guirlandes et de fleurs, destiné aux ornements dans l'architecture d'intérieur et d'extérieur.[11] Issu du latin *bucranium*, l'origine du terme est grecque provenant du mot composé βουκράνιον (βοῦς et κρανίον), signifiant littéralement le crâne de bœuf et de manière plus générale, la tête de bœuf.[12] Il est de même pour les mots βούκρανον[13] et βουκεφάλιον,[14] dont l'adjectif βουκέφαλος désigne plus précisément la race de chevaux provenant de Thessalie.[15] Quelques nuances, néanmoins, distinguent les deux termes. Ainsi, selon Christoph Börker, le mot βουκεφάλιον désigne la tête bovine complète avec la viande, les yeux, les oreilles, etc., tandis que le terme βουκράνιον n'englobe que le crâne, c'est-à-dire l'os sans chair.[16] Quant aux manifestations dans l'art, le dernier terme s'applique aux deux types de têtes squelettiques : le type le plus ancien d'une tête demi-dépouillée, avec traces de la peau et d'une touffe de poils conservés sur le front, et le type le plus récent, d'une tête entièrement décharnée qui apparaît sur l'*Ara Pacis* et devient par la suite canonique dans l'art romain. Dans un fameux passage de Théophraste, dont il sera question ultérieurement, l'auteur utilise le terme προμετωπίδιον, signifiant probablement d'un point de vue étymologique ce qui est placé devant ou sur le front ; cependant, si on pense aux éléments de la peau qui restaient sur le crâne suite à son écorchage, ce terme pourrait indiquer toute la peau du dessus de la tête et donc le bucrane.[17] Le mot bucrane est très souvent employé et abondamment utilisé en dehors de son contexte d'origine pour décrire le motif aussi pour les *realia* d'autres civilisations, devenant ainsi un terme universel.

Quant à la représentation figurative sur l'imagerie de la céramique attique, sous le terme générique « bucrane », plusieurs catégories s'entremêlent. En interrogeant la base de données de l'Archive Beazley en ligne[18] avec le mot-clé « BUKRANION », nous répertorions 171 vases. Il s'agit majoritairement de vases à figures noires où le bucrane apparaît comme épisème sur les boucliers de guerriers et où il figure le plus souvent comme βουκεφάλιον, c'est-à-dire une tête entière, avec les détails anatomiques de l'animal clairement rendus : les yeux, les oreilles etc.[19] Dans le cadre du présent article l'intérêt sera porté aux bucranes qui sont peints dans le champ de l'image, figurant dans les cas d'une scène rituelle incluant notamment un autel. Il s'agit exclusivement de vases à figures rouges à partir de 480 environ.[20] Dans cette catégorie sont inclus tant le crâne de bœuf, que les cornes (de diverses

[11] CNRTL : http://www.cnrtl.fr/etymologie/bucrane.

[12] *Etym. Magn.* βουκράνιον. Par le même terme est nommé une sorte de plante chez Dioscoride (4.183) et Galien (19.82), ainsi qu'un instrument de chirurgie chez Oribase (49.4.74). Ces usages sont beaucoup plus tardifs que la période abordée dans le présent article.

[13] Gem. 3.3. Il existe aussi en adjectif (βούκρανος) : Emp. 61.3 ; Callim. *Fragm.* 203 ; Plut. *De Is. et Os.* 358d.

[14] Lys. *Fragm.* 34 ; *SIG* 695, ligne 71. Il y a également l'attestation βουκεφάλη (Rouse 1976 [1902], 69, n. 11 et 403, IX).

[15] Ar. *Fr.* 42, cf. 41. D'après Hésychius il s'agit du cheval que l'on avait marqué sur le poitrail ou sur les hanches d'un bucrane. Sur Bucéphale, le cheval d'Alexandre le Grand et la signification de son nom : Georgoudi 1990, 145–146.

[16] Börker 1975.

[17] Theophr. *Char.* 21.7. Voir aussi : *Chronique de Lindos* C 110. Ce terme signifie également l'armure pour protéger le front d'un cheval de guerre (Xen. *Cyr.* 6.4.1 ; Xen. *An.* 1.8.7) et une sorte de casque fait de la peau du front et des oreilles d'un cheval (Hdt. 7.70). Dans une épigramme votive c'est la peau et les cornes longues d'un taureau qui sont mentionnées (*Anth. Pal.* 6.114 : δέρμα καὶ ὀργυιαῖα κέρα βοός).

[18] BAPD (http://www.beazley.ox.ac.uk/index.htm).

[19] Pour une liste détaillée de boucliers avec bucrane comme des épisèmes : Chase 1902. François Lissarrague considère la présence d'animaux sur les armes comme une métaphore. Ainsi la tête de l'animal sur le bouclier fait écho à sa puissance : p. ex. le guerrier se bat comme un taureau (séminaires sur l'esthétique des armes). À propos de métaphores animales dans les textes homériques et les comparaisons avec les héros voir Schnapp-Gourbeillon 1981. Sur une coupe à figures noires montrant la naissance d'Athéna, la déesse surgit armée de la tête de son père. Elle porte un bouclier vu de profil, dont l'épisème est un bucrane rendu en relief. Ainsi, le spectateur arrive à apercevoir les cornes et la tête qui dépassent (Londres, British Museum B 424 ; *BAPD* 301068). Sur le symbolisme du taureau : Étienne 2014.

[20] Pour les bucranes sur la céramique voir : Leskien 1994 ; Gebauer 2002, 537–540. Pour les bucranes dans l'art en général Jules Passepont établit quatre catégories : bucrane uni, décoré, feuillé et dénaturé (Passepont 1896, 91–96).

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Fig. 2. Fragment de cratère en cloche, Amsterdam, Allard Pierson Museum 2477. © Allard Pierson Museum.

espèces d'animaux, de la famille des bovidés et des capridés—dites κέρατα en grec ancien), ainsi que, plus rarement, la tête.[21] Lorsque le bucrane est un détail, parfois très discret, peint en hauteur de la scène, il n'est pas toujours mentionné par les commentateurs des vases, soit parce qu'il n'est pas aperçu ou facilement identifié, soit parce qu'il est éventuellement considéré comme insignifiant ou de peu d'importance dans la scène. D'après une estimation large, nous comptons environ 85 exemples attiques, dont la plus grande partie est certes référencée dans l'Archive Beazley en ligne, mais parfois sans mention de la présence du bucrane, peu importe le type, la tête osseuse ou uniquement les cornes.[22] Le corpus s'étend par des découvertes fortuites, dans les nouvelles publications et les catalogues de vases, et devient encore plus important, si nous prenons en considération les vases italiotes, ainsi que les créations céramiques d'autres fabrications.[23]

Le fragment d'un cratère en cloche conservé à Amsterdam (*Fig. 2*) est un bon point de départ pour entrer dans ce parcours iconographique.[24] Entre l'homme qui verse une libation sur un autel, dont seule une volute est préservée, et le dieu, en forme de pilier hermaïque ithyphallique, un bucrane figure à la même hauteur que leurs têtes. Il s'agit du crâne entièrement dénudé, sans peau ni chair, avec les cornes horizontales, dont les bouts sont légèrement relevés vers le haut. L'os frontal est figuré en entier, de la base du nez au sommet du crâne. Une partie des orbites des yeux se distingue de part et d'autre de l'os frontal, tandis que les parties anatomiques, comme le nasal, le lacrymal, le zygomatique ou le maxillaire ne sont pas discernables. Le peintre n'a pas considéré nécessaire d'entrer dans les détails, mais de le représenter de manière plutôt stylisée étant donné que le bucrane constitue un élément discret dans l'ensemble d'une composition plus importante sur le vase.[25] Pour le rendu iconique du bucrane, il n'y a pas un modèle précis à suivre ; le résultat semble être plutôt un choix artistique, comme c'est le cas, d'ailleurs, pour la forme et la décoration de l'autel, les vêtements, les détails anatomiques etc., des éléments qui évoquent les préférences stylistiques de chaque peintre, même si des variations sont attestées parfois au sein du répertoire du même peintre.[26] Ainsi, le bucrane peut être plus squelettique, avec les cornes longues ou courtes, horizontales ou verticales (détails qui pourraient fournir également une indication du sexe de l'animal), et les exemples connus varient du naturalisme au cas plus schématiques[27] parfois même abstraits,[28] ou qui deviennent dans certains cas moins facilement

[21] Le seul exemple, à notre connaissance, est le cratère à Toronto, Royal Ontario Museum 967.153 (*BAPD* 275393).

[22] Comme par exemple pour le lécythe à Varsovie, Musée National 198058 (*BAPD* 274069), la coupe à Heidelberg, Ruprecht-Karls-Universität 146 (*BAPD* 211867), la coupe à Bonn, Akademisches Kunstmuseum 1227 (*BAPD* 203313), etc.

[23] Sur le « groupe de bucranes » dans la céramique apulienne voir *RVAp* 5/74 (p.ex. Londres, British Museum 1824.0501.30). Le motif du bucrane apparaît également sur la céramique béotienne (skyphos attribué au Peintre d'Argos, Athènes, Musée National Archéologique 12589), sur les vases du type gnathia (Lecce, Museo Provencale Sigismaondo Castromediano 1041 ; *BAPD* 9002225), « *West slope ware* » (Paris, Musée du Louvre L 211), hadra (coll. H.A. Cahn *KdA* 2003 n° 62 ; Londres, British Museum GR 1995.10–3.1), ainsi que sur les vases à vernis noir (New York, collection Shebly White & Leon Levy L.1999.10.16 ; Malibu, J. Paul Getty Museum 86.AE.702 ; *BAPD* 9017960).

[24] Amsterdam, Allard Pierson Museum 2477 (*BAPD* 14133).

[25] Néanmoins, sur certains vases, quelques traits fins peints sur le bucrane indiquent éventuellement la séparation en parties anatomiques distinctes. Par exemple, sur le cratère de Laon, Musée Archéologique Municipal 37.1041 (*Fig. 6*) le trait qui court du haut au bas du crâne pourrait éventuellement indiquer la séparation en deux moitiés, c'est-à-dire en ἡμίκρανα ou ἡμίκραιραι (sur ce sujet, voir Georgoudi dans ce volume, *Chapitre 8*). De même, les cornes sont régulièrement peintes comme séparées du reste du crâne. Dans la coupe de Montauban (87.4.1 ; *BAPD* 211623), c'est la partie haute du crâne qui est distinguée du reste par un trait fin.

[26] Le cas du peintre de Penthésilée est un exemple éloquent. Dans la coupe de la collection Ingres à Montauban (87.4.1 ; *BAPD* 211623) le bucrane est squelettique, tandis que dans le yo-yo à Athènes (Musée National Archéologique 28006 ; *BAPD* 276023), les oreilles et la chair qui couvre l'os frontal sont encore visibles. De même, la forme de l'autel et sa décoration sont à chaque occurrence distincte.

[27] Syracuse, Museo Archeologico Regionale Paolo Orsi 41621 (*BAPD* 214757).

[28] Leiden, Rijksmuseum van Oudheden I.1950/7.5 (*BAPD* 15934).

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reconnaissables.[29] Quant aux cornes détachées du crâne, elles concernent un tiers du corpus ; elles figurent en paires unies[30] ou détachées et réunies à l'aide d'un filet fin.[31] De même, leur représentation figurative varie d'exemples plus naturalistes[32] à d'autres plus simplifiés, en forme de V bien ouvert.[33]

La proximité de ces représentations avec les restes d'animaux mis en lumière dans les sanctuaires et étudiés par les archéozoologues est frappante.[34] Mais il y a plus que le simple constat de la ressemblance entre les images et les découvertes archéologiques. C'est un lieu commun dans les études sur la religion grecque que quand un individu ou un groupe souhaitait offrir un sacrifice aux dieux, le choix de l'animal était d'une importance cruciale. Notamment le sexe, l'âge, la couleur, parfois une peau sans taches, et surtout son état accompli (τέλειον),[35] étaient les critères principaux dans le choix des animaux sacrificiels en correspondance avec l'identité et le goût du destinataire divin vénéré.[36] Parmi les espèces domestiquées, les bovidés, les moutons, les capridés et les cochons étaient les animaux typiques du sacrifice et moins fréquemment les oiseaux et les poissons (notamment le thon et l'anguille), selon la liste canonique du sacrifice grec.[37] Néanmoins, l'archéozoologie qui se penche désormais plus attentivement sur les restes d'animaux, considérés moins précieux que les monuments en pierre, métal ou terre cuite, et qui sont restés ainsi négligés pendant longtemps, ouvre de nouvelles voies pour l'étude de la religion grecque.[38] Elle apporte des bénéfices importants en fournissant des informations plus exactes sur les espèces d'animaux, leur sexe et tranche d'âge, précisions qui arrivent à bouleverser de façon significative certaines idées reçues.[39] En prenant en considération de manière conjointe la documentation « classique », les textes, les inscriptions et les images, les gains sont encore plus importants. Parmi la richesse et la variété des ossements d'animaux mis en lumière dans les sanctuaires, les représentations des os sur les vases et les reliefs avec des scènes rituelles sont beaucoup plus pauvres et limitées presque uniquement à la tête et à la queue, c'est-à-dire la partie de l'animal destinée aux dieux.[40] Ainsi, si ces dernières attestations fournissent une image plutôt générique du sacrifice, celle que les peintres et les sculpteurs souhaitaient transmettre par les choix opérés, les restes archéozoologiques reflètent la réalité du sacrifice alimentaire sanglant et, en particulier, la volonté de se débarasser des ossements, quel que soit le sens que les Grecs aient voulu donner à cette pratique.[41]

Manipulations de la tête

En regardant plus attentivement le bucrane sur le fragment d'Amsterdam (*Fig. 2*), un autre détail attire l'œil du spectateur : un cordon, en forme de petites pelotes réunies, peint en rehaut blanc, passe devant le front, tourne autour des cornes et tombe vers le bas en se terminant par deux fils distincts avec un nœud. D'autres variations sont possibles, selon les images, soit avec un bandeau ou filet,[42] soit avec une tige végétale,[43] qui peuvent être placés également autour de chaque corne.[44] Ces détails font écho aux στέμματα (filets) et ταινίαι (bandelettes) dont parlent les sources écrites pour décrire la préparation de l'animal avant le sacrifice.[45] Ils sont faits de filets de laine noués par intervalles ou plutôt enfilés avec des perles dont les extrémités pendent librement,[46] ou de couronnes de laine enroulées autour d'une branche d'olivier. Ces éléments de parure de l'animal sacrificiel sont, comme attendu, très répandus sur les images liées à la préparation de l'animal et notamment dans les scènes de processions, de l'accompagnement de l'animal jusqu'à l'arrivée à l'autel.[47]

[29] Varsovie, Musée National 198058 (*BAPD* 274069) ; Athènes, Musée National Archéologique, coll. Vlastos 20 (*BAPD* 208885).
[30] Berlin, Antikensammlung F 2213 (*BAPD* 208346).
[31] Naples, Museo Archeologico Nazionale 127926 (*BAPD* 206290).
[32] Boston, Museum of Fine Arts 13.100 (*BAPD* 215101).
[33] Paris, Musée du Louvre CA 154 (*BAPD* 206888).
[34] Trantalidou 2013, fig. 2–7.
[35] Arist. *Fr.* 101 ; Plut. *De def. or.* 437a ; schol. Hom. *Il.* 1.66 ; Eust. *ad Il.* 1.66.
[36] Pitz 2019.
[37] Durand 1987a, 65. Pour le choix de l'animal dans l'iconographie de vases et de reliefs voir van Straten 1995, 170–186, dont l'analyse se limite aux espèces les plus courantes, c'est-à-dire, les bovins, les ovins et les porcins. L'auteur présente les différences entre ces deux supports d'images ainsi que par rapport aux calendriers sacrificiels. Il évoque parmi d'autres les difficultés à préciser le sexe de l'animal ou sa couleur sur les images, qui restent, ainsi, une source, certes importante, mais plus restreinte.
[38] Forstenpointner 2000 ; Kotjabopoulou *et al.* 2003 ; Trantalidou 2010 ; 2013 ; Ekroth & Wallensten 2013 ; Forstenpointner *et al.* 2013 ; Albarella *et al.* 2017.
[39] C'est un lieu commun de constater que les animaux femelles ont été offerts aux déesses, tandis que les mâles auraient été offerts aux dieux. Néanmoins, cette pratique est attestée dans les sources tardives. C'est le cas, aussi, pour la couleur de l'animal : de couleur blanche pour les dieux olympiens et de couleur noire pour les divinités chthoniennes et de l'au-delà. Cet aperçu trop généraliste et schématique concernant le choix de l'animal sacrificiel, selon son espèce, son sexe et sa couleur, est progressivement précisé grâce aux récentes publications d'inscriptions et d'autres études sur la religion grecque à partir des ossements (Kadletz 1976 ; Ekroth & Wallensten 2013 ; Ekroth 2014, 333–335). Des surprises ne manquent pas, puisque les ossements d'espèces moins attendues sont mis en lumière : parmi les animaux domestiques, le chien, le chat, l'âne, le cheval, etc., et parmi les animaux sauvages et exotiques le sanglier, les cervidés, le loup, le serpent, la gazelle, le crocodile, le lion, etc. (Ekroth 2014, 337–338).
[40] Ekroth 2013, 19.
[41] Ekroth 2017a, 47.
[42] Athènes, Musée de l'Agora P 30060 (*BAPD* 44848).
[43] Athènes, Musée National, collection Vlastos 20 (*BAPD* 208885).
[44] Venice, Collection Giuseppe Sinopoli 84 (*BAPD* 105).
[45] Ar. *Pax* 948.
[46] Beazley 1939, 38.
[47] Sur les scènes de préparation de l'animal et de procession, voir Smith dans ce volume. Sur les filets et les bandelettes voir : van Straten 1995,

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Ainsi, sur une amphore à Londres,[48] la scène s'organise de manière très symétrique—on dirait presque un effet de miroir, s'il n'y avait pas des légers décalages au niveau des postures—avec deux femmes, chacune en train de passer un filet semblable autour des cornes d'un bovidé. La présence de deux trépieds d'une taille imposante ouvre un éventail d'interprétations possibles. Objet de valeur par excellence, le trépied en image devient « signe au second degré de quelque chose que dit l'image et par rapport à quoi il est à nouveau dit quelque chose ».[49] Entre espace apollinien ou dionysiaque et espace agonistique, l'image semble s'inscrire plutôt dans le registre des concours dithyrambiques.[50] Les femmes qui ornent l'animal sont vraisemblablement les personnifications de chaque tribu[51] et peuvent être remplacées par des Victoires ou des Ménades dans d'autres images de la série.[52] De même, une œnochoè attribuée au peintre de Nausicaa[53] montrant une femme décorant les cornes d'un bovidé avec un filet doit être considérée comme une version abrégée, sans le trépied.[54] D'autres moyens d'esthétisation de la tête de l'animal sacrificiel sont possibles, selon des sources qui mentionnent uniquement les cornes comme objet de décoration, notamment en les couvrant par des feuilles dorées.[55] Il est plausible que cette préparation de l'animal eût lieu avant la mise en procession vers l'autel.

Quant aux scènes de processions, une image typique serait celle du lécythe attribué au peintre de Gales,[56] avec une femme portant la corbeille sacrificielle (κανοῦν) sur la tête qui guide le défilé de deux jeunes hommes couronnés tenant des branches et de deux bovidés ornés de filets peints en blanc et en violet,[57] un des exemples de parure des animaux le plus raffiné dans l'iconographie sacrificielle, selon Folkert van Straten.[58] Le point d'arrivée est marqué par une colonne ionique décorée d'un ruban violet, élément d'architecture qui résume ainsi l'espace du sanctuaire. Aucun indice ne permet de décrire l'occasion précise de ce sacrifice ou l'identité de la divinité vénérée. Par cette décoration, l'animal sacrificiel était marqué comme ἱερόν (sacré) et était par conséquent distingué du reste du troupeau. Un aspect plus gai était ainsi conféré à la procession.[59] Quand un tel élément de parure est placé sur le bucrane qui figure en frontalité dans le champ de l'image, il encadre harmonieusement le triangle du crâne et crée un certain équilibre.[60] Il fait ainsi du bucrane un objet d'esthétisation et prolonge, par conséquent, l'aspect festif de la scène, comme le soulignent également les couronnes portées par l'homme et par le dieu sur le fragment d'Amsterdam (*Fig. 2*). Car avant tout, le sacrifice est une fête et le bucrane dans le champ de l'image devient un objet de κόσμος (parure) et μνῆμα (souvenir) de cet événement, comme nous allons le voir par la suite.

Quand l'animal était conduit à l'autel, il était consacré, ou non, à une puissance divine, et y faisait alors l'objet d'une série d'actes rituels. Dans un premier temps, tout en récitant une prière, le prêtre aspergeait la tête de l'animal sacrificiel avec de l'eau pure et jetait dans le feu quelques graines, qui étaient placées dans la corbeille sacrificielle (κανοῦν), ainsi que quelques poils qu'il coupait de la tête de l'animal.[61] Dans un deuxième temps avait lieu l'égorgement de l'animal. Le sang qui s'écoulait de la blessure était recueilli afin d'en asperger l'autel et aussi pour le consommer ultérieurement.[62] Enfin, l'animal était dépouillé et découpé en morceaux destinés aussi bien aux mortels qu'aux immortels. Dans le cadre d'un sacrifice privé,

32–33, 43–45 et 159–162 ; Gebauer 2002, 22, 145, 186, 198–200 et 537 ; Hermary *et al*. 2004, 112 ; Krauskopf & Schauber 2005, 396–399.

[48] Londres, British Museum E 284 (*BAPD* 214645).

[49] Durand 1987b, 228.

[50] van Straten 1995, 44.

[51] Durand 1987b, 228.

[52] Par exemple : Munich, Antikensammlungen 2412 (*BAPD* 213476).

[53] Laon, Musée Archéologique Municipal 37.1044 (*BAPD* 12352).

[54] van Straten 1995, 44.

[55] Sur cette pratique : Hom. *Od.* 3.432–438 ; Polyaenus, *Strat.* 8.43 ; Hermary *et al*. 2004, 112 ; Burkert 2005, 21, 81 (n. 9), 199 (fondation d'Erythrae, sacrifice d'un taureau dont les cornes sont dorées). Il y a également la référence à un βουκεφάλιον χρυσοῦν dans le trésor de Délos (Rouse 1976 [1902], 399). Sur un fragment provenant de l'Agora (P 172 ; *BAPD* 230815) les cornes sont peintes d'une couleur différente de celle de l'os frontal du bucrane. Cette différenciation au niveau du choix de la couleur pourrait évoquer la pratique de décorer les cornes séparément, comme sur le couvercle d'une lekanis attribuée au Peintre d'Athéna 1472 (Tübingen, Eberhard-Karls-Universität, Archäologisches Institut E 183 ; *BAPD* 230440) où les cornes d'un des trois bucranes peints « par terre » sont dorées (Simon 1997, 102). L'auteure pense que ce détail peut être en lien avec le décret athénien de 416/414 BC concernant l'aparchè où il était prévu d'offrir trois vaches aux cornes dorées aux déesses d'Eleusis (Hayashi 1992, 75–77). En Grèce moderne dans le cadre des Kourbania (le rituel de sacrifice d'animaux lors des fêtes chrétiennes orthodoxes) sur l'île de Lesbos, les bovidés sont ornés avec des couronnes et de fleurs en abondance (Aikaterinides 1979 ; Georgoudi 1979).

[56] Boston, Museum of Fine Arts 13.195 (*BAPD* 200206).

[57] Sur la céramique attique, parmi les animaux sacrificiels, les bovidés sont le plus souvent ornés de filets dans les scènes de procession, mais aussi devant l'autel. Les porcelets portent occasionnellement ce type de décoration sur la tête ou autour du ventre (Athènes, Musée National 12491 ; *BAPD* 46072). Pour les autres espèces, il n'y a pas d'attestation, sauf pour un bouc sur un lécythe exceptionnel attribué au peintre de Thésée (Pirée, Musée Archéologique 7339 ; *BAPD* 9040480), ainsi qu'un autre bouc sur un cratère en cloche daté vers la fin du V^{e} s. (Odessa, Musée Archéologique 76499). Quant aux reliefs, il ne reste pas de traces, mais nous pouvons supposer que les filets étaient probablement peints en couleur.

[58] van Straten 1995, 24.

[59] van Straten 1995, 43.

[60] L'effet est plus éloquent en architecture monumentale, quand le bucrane est placé sur une métope (McCredie *et al*. 1992, 173).

[61] Sur certains vases, on voit quelques lignes frisées peintes sur le haut de l'os frontal du bucrane pour indiquer une touffe des poils de l'animal (Athènes, Musée de l'Agora P 30060 ; *BAPD* 44848). Cela pourrait correspondre à l'acte de couper des poils de son front pour le jeter dans le feu, comme décrit dans les passages suivants : Hom. *Od.* 3.444–446 et Eur. *El.* 810–812. Voir aussi van Straten 1995, 43–44.

[62] Pour le traitement du sang : Ekroth 2005.

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la peau était généralement réservée au prêtre et dans le cadre d'un sacrifice civique, elle était souvent vendue au bénéfice du sanctuaire. La carcasse était vidée des intestins qui étaient grillés aux ὀβελοί (broches) à l'autel. De même, l'ὀσφῦς, la queue avec les dernières vertèbres, était posée sur le feu pour donner des signes sur le déroulement du sacrifice, et avec les μηρία, ils constituaient les parties offertes aux dieux, selon des survivances des pratiques prométhéennes. La fumée des os brulés sur l'autel qui montait vers le ciel suffisait à les satisfaire et ainsi s'effectuait la communication entre la sphère humaine et divine. Le reste de la viande était coupée en parties égales, distribuées par la suite aux participants afin d'être consommées sur place ou ultérieurement en dehors du sanctuaire.[63] Chaque partie de l'animal était utilisée d'une manière ou d'une autre lors de cette procédure afin que rien ne soit jeté ou demeure inutilisé.[64] L'ensemble de la procédure de ces actes de la boucherie et la cuisine du sacrifice exécutés principalement par le μάγειρος (sacrificateur et boucher),[65] est attesté et décrit de manière plus détaillée dans les sources écrites, notamment les inscriptions, tandis que les vases s'avèrent plus laconiques autour de ce sujet le mettant en image de manière synoptique. Les peintres de vases privilégient le collage de différents éléments et moments, tant pour le rituel sacrificiel, que pour la préparation de la viande, dont l'exemple le plus connu et le plus élaboré est l'hydrie ionienne de la Villa Giulia.[66]

Quid de la tête ? La séparation de la tête du reste du corps s'effectuait sans peine. La découpe de l'animal nécessitait néanmoins d'apprendre à manier la μάχαιρα (couteau).[67] À

Fig. 3. Coupe Rome, Villa Giulia, 510–500. D'après Gilotta 1994, pl. XXb.

partir des traces de mise à mort observées sur certains crânes de bovins, il est possible d'en déduire le processus de leur fragmentation et ainsi la technique d'abattage.[68] Après avoir dépouillé le corps de l'animal, les cornes étaient coupées avec, ou sans, la partie supérieure du crâne, et enlevées, ainsi que la peau.[69] Dans les scènes de la découpe et de la manipulation de la carcasse, en général, la tête n'est pas encore détachée du reste du corps et pend souvent d'un côté de la τράπεζα (table), où le traitement horizontal de l'animal sacrifié avait lieu.[70] Les images avec la tête coupée sont peu nombreuses et se trouvent surtout sur les vases attiques. Il s'agit notamment de cas de têtes de capridés attestés aussi dans la céramique italiote,[71] de même pour les têtes de porcelets.[72] Quant aux têtes de bovidés, elles semblent être plutôt rares par rapport aux autres espèces. Une coupe de la Villa Giulia (*Fig. 3*) datée vers la fin du VI^{e} s. constitue un exemple d'une telle exception.[73] Sur une face, trois hommes portent dans les mains un animal. Son caractère vivant entre en opposition avec la scène sur l'autre face du vase où les hommes sont limités à deux, dont un brandit une μάχαιρα (couteau), tandis que l'autre porte sur son épaule un énorme gigot mou,[74] probablement d'un bovidé. Cela est

[63] Il s'agit ici d'une description canonique du sacrifice, comme il est présenté dans plusieurs manuels portant sur la religion grecque (par exemple : Rudhardt 1958, 261–265 ; Bruit-Zaidman 2005, 159–163 ; Burkert 2011, 86–91 ; Bruit-Zaidman & Schmitt-Pantel 2017, 205–208). Grâce aux textes épigraphiques qui évoquent la diversité et les spécificités locales des procédures sacrificielles, ainsi qu'aux témoignages archéozoologiques qui améliorent notre compréhension sur les modalités du sacrifice, on pourrait être amené à nuancer ce schéma général de la survivance prométhéenne sur certains détails du processus rituel et concernant le choix de l'animal. La recherche s'est en effet peu souciée des ossements jusqu'à ces dernières années et les études les plus récentes portent des éclairages importants qui permettent une compréhension plus fine de l'opération sacrificielle, notamment pour tout ce qui concerne le traitement et la distribution de la viande : Ekroth 2008a ; 2008b ; 2009 ; 2011. Sur la juxtaposition de la théorie et la pratique du sacrifice grec, voir : Ekroth 2018.

[64] Ekroth 2017b.

[65] Voir notamment l'étude de Berthiaume 1982, 17–62. Il est possible qu'un boucher ne soit pas toujours présent dans le sanctuaire et que ce rôle soit dévolu à d'autres responsables du culte, comme les ἱεροποιοί ou les νεοποῖαι (voir *CGRN* 183, lignes 4–8, ou 104, lignes 42–45 ; je remercie Jan-Mathieu Carbon de m'avoir communiqué ces références). Cf. aussi Dibble dans ce volume, *Chapitre 3*.

[66] Rome, Villa Giulia, Ricci Hydria (van Straten 1995, V154, fig. 122 ; Gebauer 2002, Zv 38, figs. 200–201).

[67] Durand 1987a, 63. Il nous manque néanmoins des informations précises sur le traitement reçu par la tête coupée. Que se passe-t-il après l'avoir vidée de la cervelle et avoir enlevé les yeux et la langue afin de réaliser le bucrane ?

[68] Leguilloux 2000, 345.

[69] Ekroth 2008a, 261.

[70] Varsovie, Musée National 142464A (*BAPD* 209851).

[71] Munich, Antikensammlungen S 62 (*BAPD* 208254).

[72] Madrid, Museo Arqueológico Nacional 1999/127/1.

[73] Rome, Villa Giulia (Gebauer 2002, S 3a, fig. 137). Pour les inscriptions qui pourraient indiquer les fonctions des personnes figurées : Gilotta 1994.

[74] Ce terme désignant la jambe arrière désossée a été adopté par le vocabulaire culinaire (comme d'ailleurs le bœuf à la ficelle dans l'article

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Fig. 4. Coupe, Vatican, collection Astarita 574, vers 470. © Museo Gregoriano Etrusco Vaticano.

confirmé par la tête de l'animal fraîchement coupée et placée par terre. Les détails anatomiques sont rendus avec précision sur le profil droit de ce βουκεφάλιον et le spectateur peut ainsi distinguer le museau, l'œil, la corne, ainsi que le sang qui coule encore. Le jeune homme l'enjambe comme s'il s'agissait d'un obstacle ou d'un rocher. Le contraste est frappant avec les scènes de préparation et de procession où l'animal est encore vivant, au centre de l'attention, avec la tête mise en honneur par sa parure. Une fois que l'égorgement de l'animal a eu lieu, sa tête semble ne plus avoir la même valeur. Nous trouvons le même agencement pour la tête d'un capridé sur un cratère à figures noires à Londres,[75] posée par terre au-dessous de la τράπεζα, où s'opère la répartition des morceaux de viande. La priorité est donnée au traitement de la viande et à la grillade de σπλάγχνα ; car il semble qu'après le sacrifice, la tête, comme le κανοῦν (corbeille sacrificielle) posé à côté, sont deux objets sans utilité, ni de valeur importante. Posés à même le sol, le κανοῦν indique l'accomplissement du sacrifice et la tête coupée désigne l'animal abattu tout en soulignant le travail du sacrificateur-boucher.[76]

Le registre change dans une scène à l'intérieur d'une coupe attribuée au Peintre de Triptolème (*Fig. 4*), où la tête coupée d'un bovin occupe une place plus importante.[77] Elle est posée sur une construction mobile à trois pieds, surmontée d'une planche en bois épaisse : un bloc de boucher. Un jeune homme ceinturé d'un pagne, le μάγειρος, se tient debout devant cette planche. Il fait un geste ambigu de sa main gauche ; ses doigts sont bien écartés et son pouce dirigé vers l'intérieur de la paume, ce qui pourrait rappeler un geste de prière, comme cela est attesté dans le médaillon d'une coupe du même peintre conservée à Tarquinia, où un homme barbu est en train de verser une libation, en effectuant le même geste qui correspond à une prière devant l'autel.[78] Ce geste est également attesté devant l'autel, comme devant le loutérion, constructions clairement destinées aux actes rituels. Devant le bloc de boucher, la tentative d'identification de ce geste est plus difficile et reste énigmatique pour le regardeur. De l'autre main, le μάγειρος devait garder la μάχαιρα, le couteau employé pour le sacrifice mais aussi pour la découpe, comme il est attesté sur d'autres vases.[79] Derrière lui, on distingue l'ὀβελός, la broche destinée à faire griller sur l'autel, sur laquelle sont déjà embrochés des morceaux de viande, indiqués par des rehauts rouges, de forme ovoïdale et irrégulière. Ils étaient destinés aux mortels, mais une petite portion était réservée aux dieux. À cela il faut ajouter que la tête constituait, d'après les inscriptions, la part d'honneur du prêtre qui comprenait aussi, entre autres, la langue et la cervelle.[80] En revanche, les images sur les vases ne fournissent aucune indication explicite sur les destinataires de chaque partie de l'animal abattu. Les vases analysés ici présentent une étape intermédiaire dans l'imagerie du sacrifice où la tête est traitée comme un simple morceau de viande indiquant la découpe de l'animal et le festin à venir qui fait suite au sacrifice accompli. Ces images sont l'exception dans un grand corpus où la tête de l'animal est peinte en hauteur et vue de face, occupant une place discrète dans le champ de l'image, comme nous allons voir par la suite.

homonyme) et il est resté dans la bibliographie depuis les travaux de J.-L. Durand (Durand 1984 et 1987b respectivement). Cf. aussi Lissarrague dans ce volume, *Chapitre 4*.

[75] Londres, British Museum B 362 (*BAPD* 30320).

[76] Gebauer 2002, 265.

[77] Vatican, Museo Gregoriano Etrusco, AST 574 (*BAPD* 203881).

[78] Tarquinia, Museo Nazionale Tarquiniese RC1918 (*BAPD* 203880).

[79] Munich, Antikensammlungen 2347 ; Munich, Antikensammlungen S 62 (*BAPD* 208254) ; Paris, Musée du Louvre Cp 10918 (*BAPD* 204812) ; Florence, Museo Archeologico Etrusco 4224 (*BAPD* 211549).

[80] Durand 1987a, 64. Pour ce qui concerne les parts d'honneur pendant la période hellénistique et romaine voir en dernier lieu Carbon 2018 ; pour les parties de la tête en particulier, voir le chapitre de Georgoudi dans ce volume, *Chaptire 8*.

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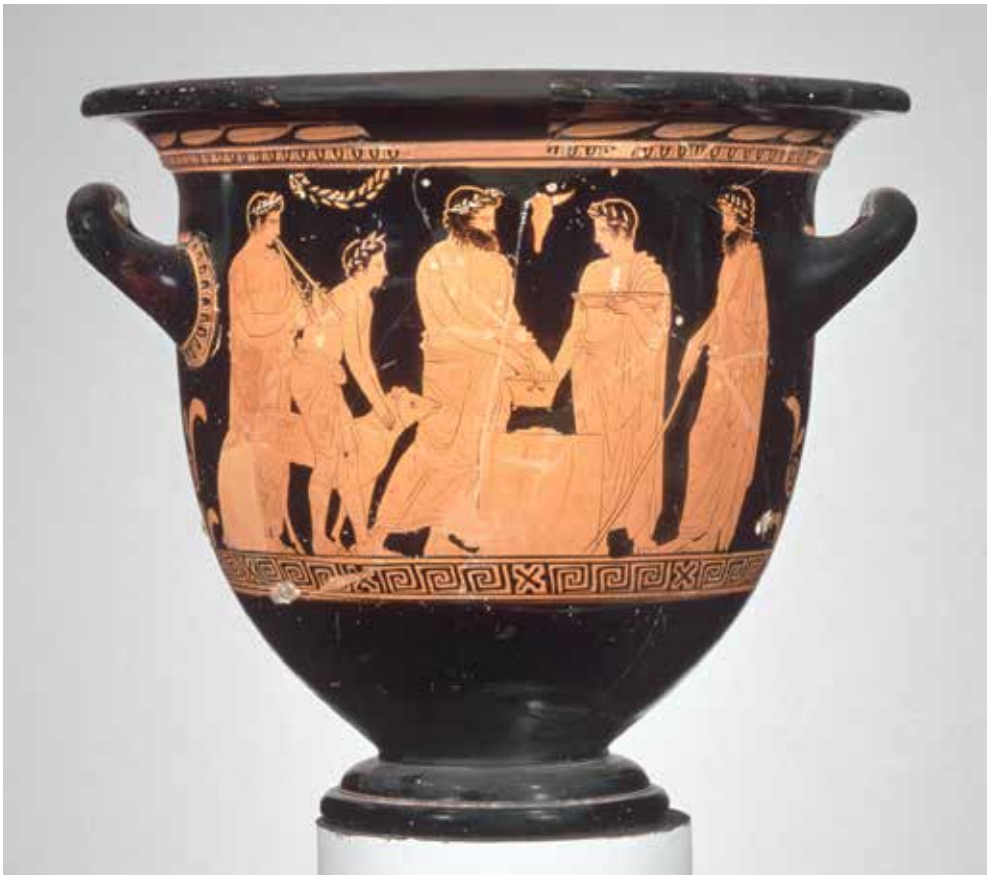

Fig. 5. Cratère en cloche, Boston, Museum of Fine Arts 95.25, 430–420. © Museum of Fine Arts.

Un signe de temporalité

Une scène typique du sacrifice serait celle d'un cratère de Boston[81] (*Fig. 5*) où l'image s'organise de manière centripète autour de l'autel, construction monolithe portant des traces de sang sur son corps et probablement un tas de cendres disposé sur la partie supérieure. Dans l'image, c'est l'autel qui attire toute l'action de la scène. De part et d'autre du monument, cinq hommes représentés dans des rôles différents manipulent divers objets. À droite, un homme barbu s'appuie sur son bâton. Devant lui, un jeune homme porte deux objets rituels : dans sa main gauche, le κανοῦν (corbeille sacrificielle), décoré d'une branche, et le χέρνιψ[82] dans la main droite, un vase qui sert de récipient d'eau pour laver les mains, comme le fait l'homme barbu de l'autre côté de l'autel. Derrière lui, un jeune homme amène un mouton, accompagné par les sons de l'aulos joué par le dernier jeune homme à gauche. Dans le champ de l'image, une couronne souligne le caractère festif, comme les couronnes portées par les hommes. De plus, sur le même axe vertical que l'autel, un bucrane stylisé portant des filets, comme sur le fragment d'Amsterdam (*Fig. 2*), rappelle au spectateur le destin de l'animal amené à l'autel. Ce schéma est commun pour d'autres espèces d'animaux, comme le bouc[83] ou le porcelet[84] qui sont conduits à l'autel, avec un bucrane dans le champ de l'image soulignant ce qui va se passer. Il semble que l'intention du peintre d'un cratère italiote conservé au British Museum[85] soit encore plus explicite, puisqu'un des bucranes figure au-dessus de la tête du bovin qui est décorée de la même façon.[86] La limite entre le vivant

[81] Boston, Museum of Fine Arts 95.25 (*BAPD* 215220).
[82] Attesté aussi comme χερνιβεῖον.
[83] Londres, marché d'antiquités, Sotheby's 1989 n° 172 (*BAPD* 41570).
[84] Athènes, Musée National Archéologique 12491 (*BAPD* 46072).
[85] Londres, British Museum F 66.
[86] Un détail de cette image mérite notre attention : un trou qui est figuré dans le haut du bucrane probablement pour indiquer qu'il était cloué à un mur (Ekroth 2017b, 35). Cette indication, très rare et absente du répertoire attique, est attestée sur un autre vase italiote, où le bucrane est cloué sur une colonne (collection Logie, Université de Canterbury, Christchurch (Nouvelle-Zélande) 156.73). Nous pouvons supposer qu'Hyllos a pris le bucrane par les cornes en l'arrachant de la colonne figurée à côté de lui pour l'utiliser comme une arme comme sur un fragment attribué au Peintre de Darius de la collection Cahn (Cahn n°104).

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Fig. 6. Cratère en cloche, Laon, Musée archéologique municipal 37.1041, vers 400. © Laon, Musée archéologique municipal.

et le mort est fine et se définit par le couteau qui figure entre les deux ; l'instrument qui va marquer le passage d'un état à l'autre. À chaque fois le schéma tripartite de l'animal, l'autel et le bucrane signale le temps cyclique et répétitif du rituel,[87] où l'animal conduit à l'autel sera sacrifié, son sang sera aspergé sur l'autel[88] et sa tête restera aussi comme trace de l'acte sacrificiel, avant que le processus ne recommence.

L'iconographie sacrificielle est un domaine riche avec des variations éloquentes qui font preuve de l'esprit ingénieux des peintres. Sur une face d'un cratère plus tardif datant d'environ 400 (*Fig. 6a*), l'autel au centre de la composition attire de nouveau l'action de tous les participants.[89] Les différences entre les deux vases, particulièrement ce qui a trait aux objets manipulés par les jeunes hommes, sont parlantes en ce qui concerne les choix opérés par les peintres. À les observer de près, ces variations sont très intéressantes. À droite, un jeune homme portant un περίζωμα tient le κανοῦν et l'œnochoè pour la libation. Devant lui, un jeune homme nu porte l'ὀβελός, la broche à σπλάγχνα, d'où son nom de σπλαγχνόπτης, tout comme un deuxième de l'autre côté de l'autel. Entre ces deux jeunes hommes, un quatrième tient un canthare qui, comme la coupe, devient un instrument de libation qui équivaut à la phiale. De l'autre main il fait un geste pouvant être interprété comme un geste de prière, qui accompagne la libation et le sacrifice afin de demander l'acceptation de ce dernier par les dieux. Leur avis favorable est marqué par la présence de deux ὀσφύες, les dernières vertèbres et la queue de l'animal, sur l'autel, qui se lèvent en formant une courbe.[90] Comme indiqué plus haut, les σπλάγχνα vont être consommés par les mortels et une partie en sera destinée aux immortels, tout autant que la queue. Par cette combinaison figurative avec les bucranes aux filets dans le champ de l'image, le peintre arrive à faire une allusion aux parties crues et cuites de l'animal.[91] De l'autre côté du vase (*Fig. 6b*), un jeune homme qui se tient debout devant un autel et un pilier hermaïque tend sa main comme pour faire une prière. On note l'absence de vase de libation et les instruments sacrificiels sont limités au seul κανοῦν, tenu par un acolyte. Cet élément visible rappelle ce qu'il cache, les graines et le couteau sacrificiel,[92] désignant ainsi le sacrifice qui aura lieu ou qui a eu lieu, sans une présence explicite de l'animal. L'indication temporelle n'est pas claire sauf pour les bucranes

[87] Dans le monde grec, les modalités de la temporalité sont diverses et varient selon le registre, littéraire, philosophique, et les pratiques, politiques, sociales, etc. Le rituel a un rythme temporel fondé sur la répétition et la périodicité. Sur les conceptions et la construction du temps : Darbo-Peschanski 2000 ; Calame 2006.

[88] Sur le traitement du sang lors de sacrifice : Ekroth 2005. Voir aussi Larson dans ce recueil, *Chapitre 11*.

[89] Laon, Musée Archéologique Municipal 37.1041 (*BAPD* 41369).

[90] Cette courbure est la conséquence du dépôt dans le feu de cette partie destinée aux dieux, une réaction considérée comme un signe propice ; les dieux acceptaient ainsi le sacrifice : van Straten 1988 ; 1995, 118–131 ; Ekroth 2009 ; Morton 2015 et Morton dans ce recueil, *Chapitre 2*.

[91] Ekroth 2008b ; 2014, 327.

[92] Durand & Lissarrague 1983. Pour une mise en question de cette interprétation : Bonnechere 1999.

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dans le champ de l'image qui, avec le sang sur le corps de l'autel, restent comme traces du passé, traces de l'acte sacrificiel,[93] qui devient par conséquent implicite sur cette image.

Quand on pense à l'autel, on pense inévitablement au sacrifice. Néanmoins, dans le vaste corpus d'images avec autel sur les vases attiques, seul un quart des scènes montre explicitement le rituel sacrificiel. Les scènes de libation à l'autel sont presque aussi nombreuses, même si la présence de l'autel n'est pas nécessaire pour l'accomplissement de ce rituel. Sur une amphore à Boston[94] (*Fig. 7*) une femme tenant une œnochoè à gauche et un homme tenant une phiale à droite, versent une libation au-dessus d'un autel ardent. Dans le champ, une paire de cornes figure en hauteur entre les deux têtes. De même sur une œnochoè attribuée au Peintre des Niobides,[95] l'emplacement de part et d'autre de l'autel est inversé entre homme et femme. La lyre tenue par la figure masculine placée à gauche fait penser à Apollon qui présente de l'autre main une phiale vers une figure féminine munie d'une œnochoè et d'une petite branche, et que nous identifions ainsi à Artémis. La paire de cornes, plus discrète, est peinte au même niveau et au même emplacement sur un axe vertical dans le prolongement de l'autel, là où se croisent également les gestes et les manipulations des ustensiles rituels. Le motif reste identique : qu'il s'agisse d'immortels, de mortels ou des acolytes de Dionysos,[96] de deux participants ou d'une seule personne en train de faire une libation à l'autel, dans tous les cas le bucrane ou les cornes s'inscrivent dans le prolongement de l'autel. Ce choix de la part des peintres est également souligné dans d'autres contextes, comme les scènes de prière. Dans le médaillon d'une coupe au Louvre,[97] un jeune homme emmitouflé adresse une prière devant un autel. Une paire de cornes s'inscrit dans la verticalité de l'autel et elle est peinte au même niveau que la main qui fait le geste de la prière et la tête de l'homme. Le schéma du bucrane figuré au prolongement de l'autel et en hauteur semble figé, même quand l'autel n'attire pas l'action de la scène. Comme dans le médaillon d'une coupe d'Altenburg[98] avec un jeune homme emmitouflé s'adressant sans geste particulier vers un hermès, la paire de cornes figure au même endroit que dans les autres images.

Fig. 7. Amphore, Boston, Museum of Fine Arts 01.16, vers 430.
© Museum of Fine Arts.

Certes, il n'y a pas de règle sans exception, même pour ce schéma d'axialité verticale entre l'autel et le bucrane. Ainsi, quelques images sortent du schéma habituel. C'est le cas quand un autre élément occupe cette place, par exemple un arbre qui surgit derrière l'autel, comme sur un cratère de Lisbonne[99] ce qui déplace le bucrane au bout de la scène, ou encore par exemple un ὀβελός tenu verticalement par un jeune homme sur un cratère provenant du marché de l'art.[100] Mais ce genre d'exception arrive aussi par erreur, comme cela est attesté sur un cratère attribué au peintre d'Uppsala,[101] où la couleur de la zone décorative du haut a coulé par accident. Dans ce cas, le peintre semble avoir fait de cet incident un bucrane styli-

[93] van Straten 1995, 159–158.
[94] Boston, Museum of Fine Arts 01.16 (*BAPD* 214213).
[95] Paris, Musée du Louvre CA 154 (*BAPD* 206888).
[96] Psaroudakis associe les bucranes au cercle dionysiaque en analysant la Coupe de la Fonderie (Berlin F 2294 ; *BAPD* 204340. Psaroudakis 1999–2000). La tentative d'attribution des bucranes à une divinité particulière s'avère douteuse. En regardant plus attentivement cette série d'images, les peintres montrent une préférence pour les piliers hermaïques, mais aussi pour Apollon, avec ou sans sa famille, et plus rarement pour Dionysos, Pan et les assemblées divines. Il semble que le bucrane ne fonctionne pas comme une caractéristique qui qualifie les dieux, mais plutôt l'opération rituelle.
[97] Paris, Musée du Louvre Cp 11770 (*BAPD* 211548).
[98] Altenburg, Staatliches Lindenau-Museum 229 (*BAPD* 211551).
[99] Lisbonne, Museu Nacional de Arqueologia 11257 (*BAPD* 9024340).
[100] Londres, marché Sotheby's 1989 n° 307 (*BAPD* 41572).
[101] Naples, Museo Archeologico Nazionale 82544 (*BAPD* 218071).

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Fig. 8. Lécythe, Tübingen, Eberhard Karls Universität S/10.1386, vers 450. © Eberhard-Karls-Universität.

sé situé au bord de la scène. Dans une autre variante, certains peintres dédoublent le motif du bucrane, qui servent alors de sorte de guillemets dans le champ de l'image ; ils encadrent ainsi la scène principale, c'est-à-dire le sacrifice qui a lieu à l'autel et au pilier hermaïque.[102]

Il existe enfin une autre série d'images où le protagoniste principal de ces scènes, c'est-à-dire l'homme, est absent, ce qui est très étonnant pour un art anthropocentrique comme l'art grec. Cette série de l'espace vide[103] regroupe des scènes figurant un autel et un pilier hermaïque, dont un cas typique est un lécythe attribué au Peintre de Karlsruhe (*Fig. 8*).[104] L'homme est certes absent, mais les traces de sa piété sont quant à elles présentes. Une paire de cornes, de chèvre probablement, et un πίναξ, un tableau votif, figurent dans le champ de l'image attestant les actes de dévotion respectivement d'un sacrifice et d'une offrande. La paire de cornes et le πίναξ sont situés de part et d'autre du pilier hermaïque. D'un côté, la paire de cornes s'inscrit dans le prolongement de l'autel pour rappeler le sacrifice qui vient d'avoir lieu. Elle se trouve dans le même axe que les fumées qui montent au ciel afin d'établir la communication avec les dieux. De l'autre côté, le tableau votif accentue cette notion de temporalité, comme souvenir du passé, tout en évoquant un acte complémentaire à celui du sacrifice, le don, comme l'attestent de nombreuses formules de prières dans les textes littéraires et les inscriptions.[105] De plus, la juxtaposition de ces éléments avec l'autel et le pilier hermaïque souligne les rapports homologues entre ces derniers, destinataires habituels des sacrifices et des offrandes dans l'imagerie attique, quand ils sont représentés ensemble ou séparément.[106] L'image sur le tableau représente un animal avec des cornes dont l'espèce est délicate à définir avec certitude.[107] En général, les peintres favorisent la représentation de piliers hermaïques pour remplir l'espace figuratif de tableaux votifs représentés dans le champ de l'image, tandis que les exemples représentant des animaux sont plutôt rares,[108] comme semblent le confirmer les *realia* archéologiques.[109] Le manque de parallèles rendant l'identification de l'animal difficile ne nous permet pas d'aller très loin dans l'interprétation de la scène. Animal sacrificiel, ou non, il est possible que le peintre n'ait pas voulu préciser sa nature, étant donné les limites de l'espace figuratif à sa disposition, mais évoquer plutôt un jeu d'images de *pars pro toto*, avec l'image d'un animal cornu en entier peint sur le tableau votif et en partie avec la présence de cornes uniquement.

Le sacrifice était un acte éphémère. Une fois que l'animal était tué, dépouillé et consommé, que restait-il pour rappeler le sacrifice qui avait eu lieu ? Quelques inscriptions nous fournissent des informations détaillées sur le nombre d'animaux sacrifiés à certaines occasions. De plus, les objets votifs abondamment trouvés dans les sanctuaires suggèrent que le dédicant souhaitait que son offrande reste comme un memento du sacrifice qu'elle accompagnait. Dans les scènes avec autels, certains détails indiquent les restes du sacrifice, les traces du passé

[102] Londres, marché Sotheby's 1989 n° 172 (*BAPD* 41570).
[103] Sur l'espace vide voir Zachari 2019.
[104] Tübingen, Eberhard-Karls-Universität, Archäologisches Institut S 101386 (*BAPD* 209076).
[105] Boardman *et al.* 2004, 270–278.
[106] L'autel et le pilier hermaïque sont porteurs d'inscriptions et de couronnes sur une amphore à Boston, Museum of Fine Arts 68.163 (*BAPD* 275790). Sur les rapports entre autel et pilier hermaïque : Durand & Lissarrague 1980 ; Zachari 2013.
[107] Il s'agit d'un quadrupède avec des cornes et une queue dirigée vers le haut. Dans la publication du vase (*CVA Tübingen, Antikensammlung des archaölogischen Instituts der Universität* 5, 84), il est écrit qu'il s'agit des oreilles. Néanmoins, tant la longueur que la finesse de ces traits nous font plutôt penser à des cornes.
[108] Il existe aussi l'image d'un bouc peint sur un tableau votif disposé sur un skyphos à figures noires attribué au Peintre de Thésée (Salerne, Museo Nazionale P 01382) et sur un lécythe à figures noires attribué au même peintre (Pirée, Musée Archéologique 7339).
[109] Les représentations d'animaux isolés sur les tableaux votifs sont rares. On peut citer les exemples d'un cheval, des oiseaux ou bien d'un lion. Sur les images de tableaux votifs en terre cuite : Karoglou 2010. À propos des motifs représentés sur les tableaux votifs figurant sur les vases attiques : Zachari 2020. Sur la question de la spatialité des tableaux votifs représentés dans la céramique : Zachari 2018.

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comme le sang sur l'autel et la tête de l'animal sacrifié dans le champ de l'image. L'offrande d'un bovin était un sacrifice coûteux[110] et le dédicant souhaitait par ce moyen satisfaire la divinité destinataire, mais aussi prolonger le souvenir de son offrande à la mémoire non seulement des dieux, mais encore de sa communauté. Il y a le cas de l'homme vaniteux qui, selon Théophraste, après avoir sacrifié un bœuf, fixa devant sa porte la tête de ce dernier avec les cornes décorées d'énormes filets afin que tout le monde puisse voir ce qu'il avait offert comme sacrifice.[111] Il s'agit d'une extravagance, si nous considérons le fait que cette pratique était habituelle dans les sanctuaires, tandis que décorer sa maison d'un bucrane était considéré comme un signe ostentatoire.

En remplaçant l'autel

Dans la partie précédente, l'axialité verticale entre l'autel et le bucrane a été évoquée à plusieurs reprises. Par cette disposition visuelle, les peintres souhaitaient souligner les rapports de proximité établis entre l'autel et le bucrane grâce au sacrifice, le premier évoquant la spatialité et le deuxième la temporalité du rituel. Le schéma semble ancré et avoir également du sens, même quand l'autel est remplacé par un omphalos comme dans une scène de libation avec Apollon et Artémis, représentée sur un lécythe attribué au Peintre de Shuvalov.[112] Néanmoins, le corpus d'images possédant des bucranes se partage majoritairement entre des images présentant un autel et celles qui en sont dépourvues. C'est la deuxième catégorie que nous aborderons ici afin de comprendre la signification du bucrane dans ces scènes où l'autel est absent. Sur un lécythe de Hambourg, un homme barbu tenant son bâton se place debout devant un pilier hermaïque.[113] Il n'est pas facile de préciser quelle est l'interaction exacte avec le dieu : une scène de prière[114] ou une simple communication visuelle ou verbale, dont les traces ne sont pas préservées. La seule indication d'un acte rituel quelconque serait le bucrane qui par son emplacement en hauteur, entre la tête de l'homme et du dieu, rappelle au spectateur les scènes similaires, mais sans la présence d'un autel.[115] Un autre cas typique est une scène de libation[116] (*Fig. 9*) placée entre Artémis tenant l'arc et l'œnochoè, et Apollon à la lyre et à la phiale, sous le regard discret d'Hermès, le dieu en personne. La paire de cornes, d'une chèvre probablement, placée en hauteur dans le champ de l'image, à la hauteur des têtes des participants, couronne leurs gestes et interactions, dont ici un acte rituel, la libation. Ainsi, le bucrane marque l'espace sacrificiel à la place de l'autel comme une métonymie, associé à celui-ci par un rapport d'analogie, comme l'image de la tour Eiffel suffit à désigner Paris.

Fig. 9. Cratère en cloche, Vienne, Kunsthistorisches Museum 3733, vers 450. D'après CVA Vienne, Kunsthistorisches Museum *3, pl. 114.*

La scène d'un cratère conservé à Leipzig[117] (*Fig. 10*) est animée par la présence de plusieurs personnes, cinq jeunes hommes et une femme, un taureau qui bondit et le bucrane immobile dans le champ de l'image. À première vue, il n'y a pas de contexte rituel évident. Néanmoins, certains détails attirent l'attention du spectateur : tout d'abord, la nudité des jeunes hommes, convenant au monde du gymnase et à un contexte agonistique.[118] De surcroît, les couronnes portées par les participants, d'une forme particulière avec trois pointes, et la torche tenue par un jeune homme nous introduisent dans l'univers de la course aux flambeaux.[119] Enfin, la femme qui tient le taureau par les cornes est probablement la personna-

[110] van Straten 1995, 176.
[111] Theophr. *Char.* 21.7.
[112] Moscou, Musée Pouchkine 594 (*BAPD* 44979). De même, dans un autre contexte rituel, celui de la purification d'Oreste sur un cratère italiote, l'agencement du bucrane avec les autres éléments s'inscrit de manière éloquente et harmonieuse dans la scène, qui suit le même schéma (Christie's New York 12/12/2002, n° 141).
[113] Hamburg, Museum für Kunst und Gewerbe 1934.1 (*BAPD* 208345).
[114] Dans son analyse du corpus d'images avec pilier hermaïque, Collard le sépare en deux catégories : les scènes de type « sacrificiel » et de type « prière ». La présence du bucrane comme évocation du sacrifice sanglant l'incite à classer ce vase dans le premier groupe (Collard 2016, 54–75).
[115] Leiden, Rijksmuseum van Oudheden I.1950/7.5 (*BAPD* 15934).
[116] Vienne, Kunsthistorisches Museum 3733 (*BAPD* 214371).
[117] Leipzig, Antikenmuseum der Universität Leipzig T 958 (*BAPD* 16409) ; Paul 1997, 23–24.
[118] Durand 1987b, 232.
[119] Kephalidou 1996, 30–31, 39–41 et 155–156.

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Fig. 10. Cratère en cloche, Leipzig, Antikenmuseum d'Universität T 958, vers 400.
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lisation de la tribu victorieuse.[120] Quel pourrait être le rôle du bucrane dans cette scène ? Certes placé en hauteur, mais relativement excentré par rapport à l'action figurée, sa présence est énigmatique en comparaison avec les images analysées jusqu'ici. En interrogeant le contexte figuré, la lampadédromie, dans la série d'images concernées et les sources, nous arrivons cependant à mieux saisir la présence du bucrane. La course aux flambeaux consistait en un transfert du feu d'un autel à un autre, allumé à l'issue de la séquence.[121] Ainsi, la torche et le bucrane indiquent la destination de ce cortège, qui, tout en étant invisible, est évidente aux yeux du spectateur. Le bucrane suggère également l'avenir du taureau, le sacrifice qui suivra l'arrivée à l'autel. Encore une fois, le bucrane indique le sanctuaire, évoquant l'espace sacrificiel en l'absence de l'autel.[122] La cohérence entre le bucrane et l'autel permet au peintre de montrer le particulier, un détail figuré dans le champ de l'image, à la place du général, le contexte plus large de la scène, et de produire ainsi du sens. Les images fonctionnent par association et en supprimant un élément de l'image, son binôme suffit néanmoins à l'évoquer et à en rendre explicite le sens porté.

Deux vases viennent confirmer notre hypothèse si l'on observe la disposition plutôt surprenante du bucrane, qui souligne son rapport étroit avec l'autel. Le premier, une œnochoè de Kiel (*Fig. 11*),[123] montre Héraclès tenant sa massue à gauche et un groupe de deux hommes en train de faire une libation avec canthare et œnochoè, de part et d'autre d'un arbre surgissant derrière un amas de pierres regroupées et un bucrane qui est placé à côté. Cette construction a été interprétée comme une ἐσχάρα,[124] c'est-à-dire un autel bas ou foyer destiné aux sacrifices pour les divinités chthoniennes et les héros. Depuis les études menées sur le vocabulaire concernant les lieux de cultes pour les héros,[125] il a été démontré que la distinction entre βωμός et ἐσχάρα est basée sur des sources tardives et ne correspond pas à une différence au niveau cultuel pour la période classique.[126] De même, les images confirment ce propos, puisque la différence de la hauteur de l'autel ne correspond pas au culte d'une divinité chthonienne ou d'un héros. Héraclès, d'ailleurs, est présent comme sacrificateur devant des

[120] Durand 1987b, 232.
[121] Patmos schol. Dem. 57.43 ; schol. Pl. *Phdr.* 231e ; Plut. *Vit. Sol.* 1. van Straten 1995, 50.
[122] Durand & Lissarrague 1980, 89 ; Gebauer 2002, 153.
[123] Kiel, Antikensammlung B 55 (*BAPD* 30017).
[124] van Straten 1995, 158 et 166.
[125] Ekroth 2002, 23–128.
[126] Ekroth 2005.

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autels, dont la forme, la matérialité et la taille sont variables.[127] Ainsi, sur ce vase, on entrevoit simplement un autel bas formé d'un amas de pierres. Le bucrane peint exceptionnellement à côté de cette construction indique par sa présence qu'il s'agit d'un espace sacrificiel.

Enfin, sur un vase apulien à Florence[128] (*Fig. 12*), le peintre a choisi un schéma visuel très explicite. La scène est divisée en deux bandeaux, comme il est commun sur la céramique italiote de cette période.[129] Dans la scène du registre inférieur, on identifie Apollon tenant un laurier qui s'adresse à un autre homme ; le dieu se tient à côté d'Héraclès appuyé sur sa massue qui parle à une femme entourée de deux enfants, l'un d'eux se tourne vers un homme âgé, un pédagogue. Oliver Taplin associe cette scène à la pièce d'Euripide, *Alceste*.[130] Quant à l'autel, construction de taille imposante, il est placé bien en évidence sur le registre supérieur, devenant ainsi l'élément principal de la scène encadré par deux figures féminines, peut-être des divinités : l'une tient une torche et l'autre une phiale, mais il n'est pas possible de déterminer leur identité avec certitude. Deux phiales disposées de part et d'autre de l'autel dans le champ de l'image ajoutent une dimension rituelle à la scène qui est également accentuée par la présence d'une guirlande entourant l'autel et à laquelle sont accrochés un bucrane et une branche. La guirlande avec le bucrane sera par la suite incorporée à l'autel lui-même, comme l'attestent les monuments des périodes hellénistique et romaine (*Fig. 1*).[131] Par cette mise en scène, le peintre souhaitait probablement mettre en avant l'idée de fondation de nouvelles fêtes dans la région de Thessalie qui comportaient des sacrifices organisés par Admète, roi de Phères et époux d'Alceste.[132] Les exemples étudiés témoignent à quel point les combinaisons figuratives du bucrane sont sus-

Fig. 11. Oenochoè, Kiel, Antikensammlung B 55, vers 400.
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Fig. 12. Mug apulien, Fiesole, Collection Constantini, vers 340.
D'après CVA Italie *fasc. 58,* Fiesole, Collection Constantini *pl. 19.2.*

[127] Par exemple : Berlin, Antikensammlung 3232 (*BAPD* 200980) ; Paris, Musée du Louvre L 62 (*BAPD* 207028) ; Londres, British Museum E 494 (*BAPD* 214501) ; Vienne, Kunsthistorisches Museum 1144 (*BAPD* 215733) ; Leiden, Rijkmuseum van Oudheden PC5 (*BAPD* 302123) ; Berlin, Antikensammlung F 1856 (*BAPD* 302125) ; New York, Metropolitan Museum 41.162.29 (*BAPD* 305499) ; Paris, Musée du Louvre CA 300 (*BAPD* 305637). Avec Héraclès comme victime sacrificielle, Oxford, Ashmolean Museum V521 (*BAPD* 202323).
[128] Fiesole, collection Constantini (*BAPD* 9008620).
[129] Sur le bandeau horizontal et vertical dans le répertoire du Peintre de Darius : Morard 2009.
[130] Taplin 2007, 112.
[131] Cette intégration du bucrane sur l'autel n'est pas attestée dans la céramique. Néanmoins, sur un cratère italiote de Naples (Museo Archeologico Nazionale H2411 ; *BAPD* 9036832), un bucrane est peint devant l'autel. Comme le vase est très restauré, notamment dans la zone entourant l'autel, la représentation du bucrane sur l'autel pourrait être une reconstruction moderne. Il en est de même pour la représentation d'un bucrane sur un omphalos disposé sur un cratère vendu sur le marché de l'art et connu uniquement à partir d'un dessin (Capue, Marché des antiquités ; *BAPD* 44249).
[132] Eur. *Alc.* 1154–1156.

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Fig. 13. Cratère en calice, Oxford, Ashmolean Museum 1939.599, vers 350. © Ashmolean Museum.

ceptibles de produire du sens selon leur emplacement dans la scène et en suivant à chaque fois des critères spatiaux variés.

Vers un ἄγαλμα

Avant de conclure, revenons à la question posée dans l'introduction concernant la valeur ornementale du bucrane. Un vase exceptionnel[133] (*Fig. 13*), issu des fouilles archéologiques d'Al Mina, un ancien port phénicien,[134] est un cas exemplaire afin de comprendre les procédures suivies et les choix opérés par les peintres et ainsi mieux saisir le rôle de la présence du bucrane sur la céramique attique, la pluralité des associations et des interprétations possibles. Il s'agit plus précisément d'un cratère en calice publié pour la première fois par le grand savant spécialiste de la céramique attique, Sir John Davidson Beazley.[135] Ce dernier, comme d'autres chercheurs dans son sillage,[136] exalte les qualités du cratère en dépit de son état très fragmentaire, en le comparant avec les vases attiques tardifs du IV^{e} s.

Sur la face A figure la punition de Marsyas en présence de plusieurs divinités. Dans le champ de l'image deux bucranes encadrent une figure debout, Hermès, et un filet est suspendu un peu plus loin. Sur l'autre face, un troisième bucrane est peint en hauteur dans le champ de l'image, à côté d'Artémis tenant une torche. Quelques trépieds sont peints en hauteur, à la même hauteur que les bucranes, mais aussi posés par terre, une allusion au concours du chant entre Apollon et Marsyas, le silène qui a fait preuve d'ὕβρις en se proclamant meilleur que le dieu. Il n'y a pas d'autel peint, ou, du moins il n'est pas visible parmi les fragments préservés. Avant de présenter et de commenter les scènes figurées sur le vase, Beazley s'arrête sur le motif qui court autour du vase, sur le bandeau au-dessous de la scène. Celui-ci étant composé d'une frise de bucranes décorés de στέμματα et alternant avec des boutons de fleurs, d'ἀνθέμια qui prédominent. Beazley le caractérise comme étant « *unique and important in the history of ornament* ».[137] En effet, le peintre a réussi ici une association novatrice par ce dédoublement du motif du bucrane en le représentant à la fois dans le registre supérieur de la scène et en l'incorporant en même temps dans le bandeau inférieur décoratif qui souligne les scènes figurées du vase. Comme expliqué ci-dessus, le bucrane placé en hauteur dans la scène devient un signe de temporalité, comme un souvenir du passé. À cela s'ajoute une autre dimension : lui seul suffit à indiquer le caractère sacrificiel d'un espace sans que la présence de l'autel ne soit indispensable. Outre les aspects du bucrane mis en avant sur ce cratère, le bucrane acquiert une entité en soi et devient un motif éloquent du sacrifice en raison de son rôle ornemental dans la zone décorative. Néanmoins, nous nous devons de rappeler que tout ce qui est de l'ordre de l'ornemental n'est pas inutile, car l'ornement porte une histoire. Après avoir retracé

[133] Oxford, Ashmolean Museum 1939.599 (*BAPD* 3700).
[134] Al Mina est localisé dans une région de la Syrie du nord près de la frontière avec la Turquie. C'est un lieu de passage et transmission dans l'Antiquité, aujourd'hui lieu d'accueil provisoire et de passage pour les réfugiés de la guerre. Pour l'histoire d'Al Mina : Boardman 1990.
[135] Beazley 1939.
[136] Boardman 1989, 191 ; Robertson 1992, 283.
[137] Beazley 1939, 36. Sur l'ornement dans l'art grec voir Dietrich & Squire 2018.

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Fig. 14. Cratériskos, collection White & Levy, 320–300. © Photo : Vasiliki Zachari.

le parcours du motif du bucrane sur les vases attiques du V^e^ s., nous pouvons mieux saisir sa signification, même quand il se place dans une zone décorative.

De plus, un autre aspect doit retenir notre attention : la chronologie. Cet emploi soi-disant « décoratif » du bucrane sur la céramique attique apparaît vers la fin du IV^e^ s. Quelques années plus tard, cette utilisation du motif du bucrane est attestée dans l'architecture monumentale, dont le premier exemple connu se trouve à l'Arsinoeion de Samothrace.[138] Il est plausible que cet emploi soit la survivance d'une pratique rituelle qui consistait à accrocher en hauteur dans les sanctuaires des têtes d'animaux sacrifiés avec d'autres objets cultuels.[139] Néanmoins, les images ne sont pas des reproductions fidèles de la réalité mais des synthèses visuelles de pratiques plus complexes.

Par la survivance et l'évolution de ce signe pendant un siècle, le bucrane obtient une puissance visuelle forte, qui fait de lui un idéogramme. Un vase à vernis noir appartenant à la collection White & Levy (*Fig. 14*),[140] parvient à aller plus loin en faisant du bucrane presque l'unique objet de représentation. Une série de bucranes portant des στέμματα et réunis à l'aide de filets et de branches de lierre éclate sur la surface brillante et noire du vase, faisant le tour au milieu du corps du vase. Le contraste entre le noir du vernis qui couvre le vase en entier et le doré rayonnant de la frise est très révélateur de son esthétique exceptionnelle. L'effet est obtenu grâce à la technique adoptée, celle de la dorure (*gilding* en anglais),[141] qui existe depuis le VI^e^ s. pour embellir certains détails des représentations sur les vases, comme les bijoux portés, les ailes, les couronnes, les guirlandes, etc. Elle consiste en l'application de fines feuilles d'or sur l'argile en saillie, avant ou après la cuisson du vase. Le relief qui dépasse de la surface lisse et brillante du vase donne un effet de trompe-l'œil, une troisième dimension accentuant par cette décoration fine le motif figuré et créant une œuvre sophistiquée, tandis que la matière utilisée, l'or, transforme le motif en un objet de valeur, comme un bijou, tel qu'il est attesté dans d'autres exemples.[142] Le bucrane devient par conséquent un κόσμημα et un ἄγαλμα, un signe de valeur, comme le bœuf sacrifié devient une offrande de grandeur pour faire plaisir à la divinité vénérée. Ainsi, nous pouvons interpréter les bucranes miniatures en métal ou/et en terre cuite[143] mis au jour dans les sanctuaires comme signes de valeur : même quand la personne n'était pas en mesure d'offrir un animal de grande valeur, comme un bovidé, elle en offrait au moins son image.

[138] Beazley 1939, 36. En fait, la première attestation en contexte architectural est connue dans le site néolithique de Çatalhöyük en Turquie, où des bucranes ont étés retrouvé dans des espaces domestiques. Leur emplacement initial et leur utilisation restent inconnus. Sur l'utilisation de bucranes comme masques dans le cadre de performances rituelles sur l'île de Chypre : Averett 2020.

[139] *Chronique de Lindos* C 110–114 ; schol. Ar. *Plut*. 943 ; Beazley 1939, 37 ; Nilsson 1967, 88 et 145. Voir aussi les cratères apuliens à Naples, Museo Archeologico Nazionale 3230, où les bucranes alternent soit avec des rosaces, soit avec des phiales.

[140] New York, collection Shelby White & Leon Levy. von Bothmer 1990, 185, n° 132.

[141] Sur cette technique voir Cohen 2006, 106–148 ; Williams 2003.

[142] Londres, British Museum GR 1871.0722.3.

[143] Siganidou 1981, 51. Je remercie Gunnel Ekroth de m'avoir signalé cette publication.

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Conclusion

Dans cette contribution, nous avons retracé l'usage que font les peintres attiques de la tête de l'animal sacrificiel, tout en interrogeant ses rapports visuels et fonctionnels avec l'autel. Sous le terme conventionnel bucrane, signifiant littéralement le crâne de bœuf, les imagiers de la céramique mettent en avant autant la tête dénudée de bovidés que les cornes de diverses espèces animales, dont les représentations concordent avec les restes archéozoologiques, malgré les variations qui relèvent de la création artistique. Par le biais de ce motif peint dans le champ de l'image, le spectateur arrive à restituer une série d'actes liés au traitement de la tête de l'animal avant et après son sacrifice. De cette procédure rituelle, les peintres choisissent d'en mettre en valeur certains aspects, parmi lesquels la parure de tête de l'animal vivant ornée de filets et de bandelettes pour le marquer comme sacré et le distinguer ainsi des autres animaux, tandis que, dans les images de la cuisine du sacrifice, le traitement de la tête a une place secondaire : elle est traitée comme un morceau de viande. L'emplacement du bucrane en hauteur et en prolongement de l'autel marque d'un côté l'association visuelle parlante entre ces deux éléments et il souligne de l'autre le rôle du bucrane comme signe de temporalité, une trace du passé, l'empreinte tangible d'un rituel éphémère, le sacrifice qui a eu lieu à l'autel. Ainsi, quand le schéma tripartite qui indique le temps cyclique et répétitif du rituel—animal, autel, bucrane—se limite uniquement au dernier élément, la présence du bucrane seul suffit à évoquer l'espace sacrificiel, en lieu et place de l'autel, et à faire allusion au contexte rituel. De même, le bucrane devient un élément de valeur indiquant l'animal sacrificiel par excellence, le bovin. En plus, les peintres font du bucrane un motif figuratif parlant, au point de le représenter doré, même quand il est placé dans la zone décorative du vase.

Les limites entre décor, symbole et réalité sont toujours à questionner et à définir de nouveau, comme le rappelle le symbole A. Première lettre des alphabets grec et latin, il désigne ce qui est le commencement et est aussi employé comme tel par convention dans les systèmes de numérotation en science. Graphiquement parlant, il s'agit en réalité d'un bucrane stylisé inversé, provenant de l'aleph phénicien, dont l'origine à son tour réside dans un symbole plus ancien, proto-sinaïtique qui, comme le hiéroglyphe égyptien, symbolise et signifie la tête de bœuf.

VASILIKI ZACHARI
École des hautes études en sciences sociales, Paris
vasso_zachari@yahoo.gr

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STELLA GEORGOUDI

8. Heads, tongues and the rest

The *kephale* and its parts in the sacrificial practices

Pour François,
φίλον παμφίλητον καὶ ἀλησμόνητον,
in memoriam

Abstract

Based on literary and epigraphical evidence, this paper offers a reflection on the vocabulary which denotes the head of the sacrificial animal and its parts—especially the tongue. Terms such as *kephale*, *hemikraira* or *glossa* are taken into account, but also words such as *koryphaia*, *kephalaion* (the meaning of which is not clear), *egkephalos* ("brain"), *rynchos* ("snout"), *ota* or *ouata* ("ears"), and even *siagones* ("jawbones"). An effort is made to clarify the meaning of these terms and to understand how and to whom the relevant parts were distributed. At the same time, it is useful to verify the presence or the absence of these terms in Aristotle's works on animals; and to examine the possible nuances of a word found both in literary and epigraphical sources (for example, the term *hemikraira*, which is found in Aristophanes and in Athenaeus, but also in the sacrificial regulations of the Phrearrhioi in Attica).*

Keywords: Greek animal sacrifice, Greek literature, Greek inscriptions/epigraphy, head, half-head, tongue, brain, snot, ear, jaw, deity, priest, priestly perquisite

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In order to form a preliminary idea about the use of the head and its parts in the sacrificial practices, I took as a principal source of material the three corpora of Franciszek Sokolowski (*LSAM*, *LSCG*, *LSS*) and the work of Eran Lupu on the so-called Greek "Sacred laws" (*NGSL*), as well as all the inscriptions referring to this subject, now selectively included in the very useful *Collection of Greek Ritual Norms* (*CGRN*).[1] In the majority of the commentaries, it is suggested that "the head or a half of it is a relatively common priestly prerogative",[2] sometimes accompanied by the feet (*podes*), or, more seldom, by a part of the *splanchna*, but also, in certain cases, by the skin. However, this kind of statement or listing of inscriptions referring to heads ignores the reasons for the attribution of this part of the animal. I am not sure that I will be able to treat this complicated question; nevertheless, before trying to "split" the sacrificial head into the different parts mentioned in the religious regulations, let us make some remarks gleaned particularly from literary evidence.[3]

It is true that, in these epigraphic corpora and in relation of our subject, the greater number of references concern the term "head" (*kephale*), closely followed by the "tongue" (*glossa*). However, a cursory glance at *The Deipnosophists* of Athenaeus shows that the word itself, *kephale*, is rarely mentioned for

* I would like to express ἕνα μεγάλο εὐχαριστῶ to Gunnel Ekroth and Jan-Mathieu Carbon, my two precious friends and colleagues, for this marvelous and instructive Conference they had organized. I am deeply indebted to them for having improved my text, in different manners, thus making it more clear and comprehensive.

[1] On the conventional denomination "sacred laws", which is not only inadequate but also erroneous, cf. Parker 2004; Georgoudi 2010; 2016, 209–211.

[2] See *infra*, with *note 27*.

[3] On the division, in general, of the sacrificial animal, cf. Ekroth 2008.

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domestic animals, as if the "head" was not considered a usual type of food. A fragment of Aristophanes' *Storks* (*Pelargoi*) refers, of course, to "heads of lamb and hams of kid (κεφαλάς τ' ἀρνῶν κωλᾶς τ' ἐρίφων)",[4] but the context is missing. According to an etymology of the word *kephale*, the head is "very dry" and "bony", despite the "brain" within it, the *egkephalos*, which was considered a white, soft, hot and fluid substance.[5] In this respect, we could cite the strange expression "the bones of the head" (τὰ ὀστᾶ τῆς κεφαλῆς), referring to pigs, in the *agoranomos* inscription from the Piraeus, to which we will return. As Georges Steinhauer, the editor of the inscription, thinks, we must recognize in this expression the "ears and the jawbones" (τὰ ὠτία καὶ αἱ σιαγόνες); I would add also the snouts (ῥύγχοι), sometimes mentioned with the ears (Ath. 3.95a)—see *infra*.

In any case, according to Athenaeus (2.66c), "people regarded the head as sacred" (ὅτι δ' ἱερὸν ἐνόμιζον τὴν κεφαλήν), and this is "clear from the fact"—as he says—"that they swore by it and paid obeisance to the sneezes which came from it, as if they were sacred (πταρμοὺς προσκυνεῖν ὡς ἱερούς)." Still according to Athenaeus, "we confirm our approval by nodding the head, even as the Homeric Zeus says: 'Come now, *I will bow my head* in assent to you' (εἰ δ' ἄγε τοι κεφαλῇ ἐπινεύσομαι)."[6] This sacredness of the head was perhaps *one* of the reasons for considering the heads of sacrificial animals as an important priestly prerogative.

A capital priestly prerogative

Actually, in many religious regulations, the *kephale* is given to the priest—but not only to him. I take this opportunity to note that we often speak of "priestly prerogatives" in general, without putting the accent on the similarities or the differences between priest and priestess, an important question from the point of view of gender.

The head can often be accompanied by other parts (as the feet and the skin, see *infra*), and figures also in the prerogatives of priestesses. At Chios, for example, in an unknown cult, the priestess (*hierea*) receives probably the head, but also three ribs (lines 6–7: κεφαλ̣[.] | [...] τρεῖς πλεόρας) and other parts which are difficult to identify owing to the fragmentary condition of the inscription.[7] However, this text is, in my opinion, interesting also for another reason: it refers to the well-known and typical expression (even if reconstituted here), found also in other regulations of Chios (see *infra*), about the *splanchna* placed "in the hands and the knees" [of the divine statue], as offerings to the divinity (lines 1–3). Now, this significant part of the sacrificial animal would, very probably, be taken away later by the cult agent: here by the priestess, but in other cases by priests, such those, for example, of [Zeus] Pelinaios, or of an unknown divinity, still at Chios.[8] We will return to the latter two inscriptions, but let us notice that, from the point of view of gender, these precious portions can appear as perquisites of both sexes. It is worth adding here that, in some cults, a "quarter of the viscera" (τεταρτημορίδα σπλάγχνων) is a special portion given, for example, at Halikarnassos and at Theangela (near Halikarnassos), whether to priests[9] or to a priestess, as in the case of the *hiereia* of Artemis Pergaia.[10] However, in these cases, the *splanchna* are not associated with the head, as happens in the cult of the Zeus Megistos at Iasos, where, a quarter of viscera is also awarded to the priest with the head and the feet of the animal: κεφαλὴν κα[ὶ] πόδας καὶ σπλάγχνω[ν τ]έταρτομ μέρος.[11] Even if this *hiereus* receives also other perquisites, such as the leg (lines 1–2) or the skin (lines 5–6, but only from strangers, *xenoi*), we have here, as in other cults, a kind of enumeration of three parts of the sacrificial animal, offered to the cult-agent as *gera*, of which the *kephale* constitutes the standard element, whereas the two other parts can vary.

Nevertheless, the head, this "capital" part, is sometimes given—as mentioned above—with the feet and the skin. The recipient of this triple honor can be either a priestess, such as the *hiere* of Dionysos Thyllophoros in Kos (see *infra*), or a priest, such as the *hiareus* of Apollo Dalios, also on Kos.[12]

[4] Ar., fr. 449 (Henderson 2007) *apud* Ath. 9.368e.

[5] *Etym. Magn*. *s.v.* κεφαλή: ὁ κατάξηρος τόπος καὶ ὀστώδης; and *s.v.* ἐγκέφαλος: λευκὸς καὶ μαλακός … θερμὸς καὶ ὑγρός.

[6] Athenaeus is referring here to a verse of the *Iliad* (1.524), in a passage where Zeus, speaking to Thetis, continues: "for this from me is the surest token among the immortals; no word of mine may be recalled, nor is false, nor unfulfilled, to which *I bow my head*." (*Il.* 1.525–527, transl. Murray 2003). However, in the Homeric passage, the verb used twice (v. 524 and 527) is κατανεύω, not ἐπινεύω.

[7] *LSCG* 120; *CGRN* 88 (*c.* 350–300 BC), lines 6–7 (on the question concerning the head, see the commentary, line 6); cf. Le Guen-Pollet 1991a, no. 45. Carbon (2016, 39–40) restores with much probability the term [γλῶσ]σα, tongue (line 3), a common *geras* for priests and priestesses (see *infra*).

[8] See, respectively, *LSS* 129; *CGRN* 36 (end of 5th century BC), lines 4–6 (on this inscription and on Pelinaios, see *infra*, with *note 90*); *CGRN* 41 (*c.* 425–350 BC), lines 11–13; cf. particularly van Straten 1995, 131–133.

[9] Halikarnassos: *LSAM* 72; *CGRN* 104, lines 38–39 (cult of Poseidonios, see *infra*, with *notes 32–33*); Theangela: *CGRN* 119 (*c.* 250–200 BC, cult of Zeus Nemeios), lines 9–10.

[10] *LSAM* 73; *CGRN* 118 (*c.* 250–200 BC), lines 11–12.

[11] *LSAM* 59; *CGRN* 42 (*c.* 425–375 BC), line 3. See the detailed new edition of this inscription by Fabiani 2016.

[12] *LSCG* 156 + 157; *IG* XII.4 332; *CGRN* 85 (mid-4th century BC), B lines 58–59: … γέρη φέρει ὁ ἰαρεὺς] σκέλη, κεφαλ[άς], | πόδας καὶ τὰ δέρματα. This example, even if, in the current state of the evidence, is unique for a Koan priest, can somewhat rectify or nuance the affirmation that: "The honorary share attributed to the priest on Kos consisted *almost invariably* of the skin and the back leg (δέρμα καὶ σκέλος)" (Paul

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At Kyrene, a pregnant woman, before giving birth, must go to the sanctuary of Artemis, more precisely, to a place called νυμφῆιον, "bride-room", and give to the priestess who is called "Bear": "feet and the head and the skin".[13] According to Noel Robertson, these three parts outline the animal's form, thus reconstituting "the victim", and, in this case, "probably the animal was flayed so that feet and head remained attached". This is an attractive hypothesis, but I see here no "magical notion" in "the combination of feet, head, and skin", as Robertson believes.[14] This type of skin flaying does not seem very unusual, as can be suggested by a lemma of Hesychius where the term *endrata* (and not *endora*, as is sometimes written) is explained by "what is wrapped in hide with the head and the feet" (τὰ ἐνδερόμενα σὺν τῇ κεφαλῇ καὶ τοῖς ποσί).[15] Let me note here, in parentheses, that according to the specialists of images, "the inclusion of the head and feet with the rest of the hide" is not at all "*often*" depicted "in Greek iconography", as has been asserted.[16] What is *often* represented is not these three parts together, but separately: the *bucranium*, the ox-head, or the leg with the thigh.[17]

There is another question to take in account: sometimes the cult agent receives the head of certain animals and not of others. From this point of view, the example concerning the priestess of Dionysos Thyllophoros, from Kos, is very relevant. As gift of honor from the woman who offers the sacrifice, the priestess (ἁ ἰερῆ) takes the leg and the skin of full-grown (τελείων) sheep or of a bovine, but not the head. On the contrary, she can obtain the head and the feet of yearling animals (ἐτέλων), or of a piglet. In any case, she is granted half of the offerings deposited by someone "on the table for the god" (ἐπὶ τὰν τράπεζαν τῶι θεῶι).[18] We do not know the nature of these offerings, but we can suppose that perhaps they included the heads of full-grown animals, placed—should the occasion arise—on the sacred table, and in that case, they could come back to the priestess. Anyway, the interest of this text relies also on the distinction between adult and young animals, a significant division in a sacrificial context, formulated by other terms or expressions.[19]

Sometimes the sanctuary itself could become the place where some offerings ought to be deposited. According to a fragmentary regulation concerning the cult of Dionysos Dasyllios at Kallatis, if the leg (σκέλος) of the sacrificed animal (perhaps a goat) must be put "on the table" (ἐπὶ τράπεζαν), "the skin with the head and [the feet ...]" should be placed in the sanctuary of the god, the *Dasyllieion*.[20] We can return to the hypothesis of Robertson, and consider that the skin was flayed in such a manner as to leave the head and the feet attached to it. This "reconstituted animal" could then be deposed in the sanctuary as a kind of commemoration of the sacrifice, much like the *bucrania*, as is rightly said in the commentary of the *CGRN*. However I disagree with the theory which searches to relate this kind of deposition with the old, doubtful and unproved theory of the "comedy of innocence", developed, as it is known, particularly by Karl Meuli and Walter Burkert.[21] Nor can I follow Alexandre Avram, when he tries to transform Dionysos Dasyllios into a "chthonian" deity, an argument that finds no support in the context of this inscription.[22] As regards the hide, the different suppositions (sold for the benefit of the sanctuary, suggests Sokolowski, used to dress the statue of the god, or worn by the cult agent and even by the worshippers)[23] can constitute interesting suggestions, but remain impossible to prove in this context.

Occasionally, we remark a distinction between *public* and *private* sacrifice: at Chios, according to two decrees concerning the prerogatives of the priestess of Eleithie (form of the name

2013a, 270; the italics are mine; cf. Paul 2013b, 65, where this inscription is cited, without comments on the *kephalai*). The priest of Apollo Dalios also deserves the heads (and the feet).

[13] *LSS* 115 B; *CGRN* 99 (*c.* 325–300 BC), B lines 97–99: … τᾶι ἄρκωι δωσεῖ πόδας καὶ | τὰν κεφαλὰν καὶ τὸ δέρμα.

[14] Robertson 2010, 335. Following the same kind of idea, Robertson (2010, 319) explains the name "Bear", attributed to the priestess, by the fact that "the bear species beyond all others is strong and sure in producing and fostering its young", a fact that would be "another case of magical analogy". Nevertheless, neither the context of this inscription, nor what we know about some other "bears", those of Brauron for example, seem to confirm such an interpretation.

[15] Hesychius, *s.v.* ἔνδρατα. The form ἔνδορα, meaning the offerings wrapped (i.e. in "hide", δορά), is found in some Koan inscriptions: cf. *IG* XII.4 278; *CGRN* 86 (*c.* 350 BC), A lines 47–48 (with the commentary); *IG* XII.4 274; *CGRN* 86, D lines 8–10 (stelai reordered by Carbon); *IG* XII.4 332; *CGRN* 85 (*c.* 350 BC), A lines 26–27; on *endora*, see Paul 2013b, 351–354. I am very grateful to Michel Casevitz for having confirmed (pers. comm.) that the term *endora* or *endrata* signifies "what is *wrapped* in hide or skin", a sense based on the relation between the verbs δέρειν and *δορόω ("*mettre une peau, couvrir d'une peau*"). Thus the compound "ἔνδορα, *ce sont les peaux … les matériaux qui couvrent*".

[16] Cf. *CGRN* 169, commentary on lines 5–6 (on this inscription from Kallatis, see *infra*). For the feet and head being left attached to the skin, see also MacKinnon in this volume, *Chapter 5*.

[17] I own this precision to my unforgettable friend and colleague François Lissarrague.

[18] *LSCG* 166; *IG* XII.4 304 (*c.* 200–150 BC), lines 30–38. Cf. Paul 2013b, 119–121.

[19] I return thoroughly to this question in a work now in progress.

[20] *LSCG* 90; *CGRN* 169 (*c.* 200–100 BC), lines 3–6 (ἐν τῶι Δασυλλιείωι).

[21] As Avram 1995, 250–251, thinks (with references to these two scholars).

[22] Avram 1995, 246 ("*un Dionysos à caractère profondément chthonien*"). More probably, the epiclesis Dasyllios might be associated with the epithet δασύς, in the sense of "hairy, shaggy" related to the hide of the animals sacrificed to the god (cf. Hom. *Od.* 14.50–51: δέρμα … μέγα καὶ δασύ, "skin ... large and hairy", referring here to a shaggy wild goat). Chantraine (*DELG*, *s.v.* δασύς) also thinks of a bearded Dionysos.

[23] Sokolowski (*LSCG* 90, p. 179, comparing *LSAM* 74, line 45); *CGRN* 169, commentary on lines 6–8.

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of the goddess Ilithyia in the inscription),[24] if a private person performs a sacrifice, the perquisites of the *hierea* include some portions of the animal and the tongue (γλῶσσαν),[25] *but not the head* (decree A). This implies that, in this case, the head could probably be taken away by the sacrificant. On the contrary, whenever the city performs a sacrifice, the priestess "will receive whatever is inscribed on the stele,[26] and the head of the sacrificial animal will also be given to her" (decree B).[27] However, in this second decree it is also prescribed that if an *idiotes* "makes" (ποιῆι) a sacrifice, the priestess will receive "whatever is inscribed on the stele" (lines 7–9), which no doubt refers to the perquisites mentioned in the decree A. Another example, from Hyllarima in Karia, shows that, in the case of sacrifices performed by the community (*koinon*), or the people (*demos*), the priestly "honorific portions" (γέρα) are composed of the head and the feet.[28] Elsewhere, the city appears to be generous enough: the priestess of the Mother of Gods at Iasos can receive, during the public sacrifices, "the right leg and half of the head" (τῆς κεφαλῆς τὸ ἥμισυ), the tongue, the brain, the neck (*trachelos*), a shoulder-blade and portions of the side; whereas, in case of private sacrifices, she receives a ham (κωλέαν).[29] Yet this generosity, compared with the priestly *gera* at Chios, or at Hyllarima, seems less significant, if we take in account that, at Iasos, the priestess has a right to all these parts, enumerated in detail, as we have seen, but only from *one* of the animals sacrificed during the annual civic festival (ἑνὸς ἱερε[ί]ου), even if this *hiereion* is of her choice.[30] This kind of restriction concerns also the private sacrifices (ἂν οἱ ἰδιῶται θύωσιν), where the *kolea* given to the priestess comes from a *single* animal (ἀφ' ἑνὸς ἱερείου), as is carefully repeated (lines 15–16). By comparison, at Chios, there is no such a limitation, or at least it is not formulated as such, whereas at Hyllarima (*supra*, *note 28*), it seems clear that the perquisites of the priest come from all the animals sacrificed by the *koinon*, or the *demos* (λήψεται δὲ γέρα τῶν θυομένων). Nevertheless, the *hiereia* of the Mother of Gods also has the privilege to take "all things placed on the table" (lines 16–17: τὰ παρατιθέμε[να] | πάντα ἐπὶ τὴν τράπεζα[ν]), except those made of gold, of silver or of cloth—perhaps a manner of compensating for the restrictive *gera* awarded during the sacrifices of the *idiotai*. Anyhow, these documents suggest that the *kephale* is an important *geras*, granted to a priestess or a priest, in the case of public sacrifices.

However, priests and priestesses are not the only recipients of animals' heads. A document from Ephesos, dated to the late 2nd or 3rd century AD, is entitled κεφάλαιον νόμου πατρίου, "chapter of an ancestral law".[31] This "chapter" enumerates cult duties to be performed by the *prytanis* who must give to *hierophant* the "head and the tongue and the skin" (κεφαλὴν καὶ γλῶσσαν καὶ τὸ δέρμα) of any animal sacrificed to the gods, as a reward for "the experience and the greatness of his service." We find here again the triple honor seen before, three parts of the animal given as *gera*, but instead of the feet, we have the tongue. However different the formulation of this order, the fact that the tongue is mentioned separately allows us to think that the head did not always and necessarily include the tongue, which, as we will see, can be "cut apart". At Halikarnassos, in the context of the familial cult of Poseidonios, whereas the priest obtains "from each animal a ham (κωλῆν),[32] a quarter-portion of the viscera and an equal share of the other parts", the officials called *epimenioi* can reserve "the heads and the feet" for themselves (τὰς δὲ κεφαλὰς καὶ τοὺς πόδας αὐτοὶ ἐχόντων).[33] In a regulation concerning the duties of certain officials at Chalketor near Mylasa, after having given the perquisites to the priestess (τὰ γέρα τῆι ἱερείαι ἀποδόντε[ς]), this group of officials distribute the remaining meat among the people, but "set aside the heads and the in-

[24] *NGSL* 20; *CGRN* 38 (*c.* 400 BC), A lines 4–7; B lines 3–7. Cf. also Koumanoudis & Matthaiou 1985, who erroneously qualify these inscriptions as "sacred laws".

[25] The obligation to consume these perquisites "on the spot in the company of the women who performed the rites" (lines A 8–10), related to the role of the priestess, remains a subject of discussion: cf. *CGRN* 38, commentary on these lines, with references. On the tongue given separately, see *infra*.

[26] On the formula: τὰ ἐν τῆι στήληι γεγραμμένα (B lines 5–6, 8–9), and the importance of the stele as support of the writing in the religious regulations, cf. Georgoudi 2016, especially 217–222.

[27] On the head or the half of it as "a relatively common priestly prerogative", see Lupu (*NGSL*), 312–313.

[28] *LSAM* 56; *CGRN* 193 (*c.* 198/197 or 197/196 BC), Ab lines 16–18; B lines 17–21 ([λή]ψεται δὲ γέ̣|[ρα] τῶν θυομέ̣|[ν]ων ὑπὸ το δή|[μ]ου κεφαλὰς | [κ]αὶ̣ πόδας).

[29] *CGRN* 196 (*c.* 225–200 BC), lines 12–18; Maddoli 2015. On the sense of κωλῆ, see *infra*, *note 32*.

[30] As it has been noticed (cf. *CGRN* 196, commentary on lines 12–16), this possibility would allow the priestess "to select one of the largest or most beautiful animals in the procession, thus potentially increasing the size or quality of her share of meat".

[31] *LSS* 121, lines 18–22; Lupu (*NGSL*), 312–313. In late Greek, the term κεφάλαιον designates rather a "chapter", not a "summary" as Horsley 1987, 106, or Lupu in *NGSL* p. 54 translate (cf. *DELG*, *s.v.* κεφαλή; Georgoudi 1990, 36–37, 42).

[32] Many scholars translate κωλῆ by "thigh". I prefer the translation "ham" (indicating especially the hind part of the thigh), because the word "thigh" designates, for me, the μηρός. Cf. Simms 1998, 94, who also translates the κωλῆ included in the priestly perquisites of the deme Phrearrhioi as "ham" (see *infra*); van Straten 1995, 155: "a ham (κωλῆ)"; Dimitrova 2008, 251–252: "ham", for κωλῆ (no. 1), and κωλεῖον (no. 5); Carbon 2017, 161: "κωλῆ should always properly refer to a ham from a hind leg". Lupu (*NGSL*, Indices, s.v. κωλῆ) translates mostly "thigh", but "ham" in the regulations of Phrearrhioi (doc. 3, line 5), without any comment. I hope to reconsider elsewhere the crucial question of the significance of the words μηροί, μῆρα, μηρία, translated, very often and without hesitation, by "thigh-bones".

[33] *LSAM* 72; *CGRN* 104 (*c.* 285–245 BC), lines 38–44. Cf. the detailed edition with translation and commentary of this inscription by Carbon, in Carbon & Pirenne-Delforge 2013, 99–114 (on the *epimenioi*, see in particular pp. 83–95).

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nards for themselves" (ἀφ[αιρ]οῦντες ἑαυτοῖς τάς τε κεφαλὰς καὶ [τὰ ἐ]νδόσθια).[34] From this fragmentary regulation, we learn nothing about the name of the honored divinity, or the title of these officials. According to Sokolowski, it concerns perhaps the *hieropoioi*; on the contrary, Jan-Mathieu Carbon thinks that "this text probably referred to *neopoiai* of a local Artemis."[35] However that may be, I am not sure that these officials or civic agents, who often sit on a committee *ad hoc*, would have an ancillary role with regard to the priest, as some scholars suggest. These groups of officials, often instituted by the city, had the power to inspect, to supervise, and to intervene in the administration and the organization of cults; they would sometimes be in charge of different important questions concerning the rituals and other activities in Greek sanctuaries.[36]

Among other groups who can obtain this kind of animal part, I mention particularly the case of the smiths (*chalkeis*) and potters (*kerameis*) in the well known sacrificial calendar of the city of Kos, because to these groups is given not a *kephale*, but what is called *to kephalaion* (χαλκέων καὶ κερα[μέ]|[ω]ν ἑκατέροις τὸ κεφάλαιο[ν]).[37] What does the term *kephalaion* mean? For some scholars, this word signifies the *brain*, and they translate, as do Peter Rhodes and Robin Osborne, "to each of smiths and potters, the brain", without further commentary. Others suppose that it indicates more probably "half of the brain", and that the brain is called here *kephalaion*, "instead of the more usual *egkephalos*." Finally, according to Stéphanie Paul, it means "*une partie de la tête*."[38] I have some doubts about such interpretations. On the one hand, Aristotle, who goes fully into detail concerning the head, the *kephale*, does not mention the word *kephalaion* anywhere in his prolific works on animals and their parts. On the other hand, literary sources and especially certain passages attributed by Athenaeus to various poets refer to the *kephalaion* of animals, but this word designates simply the head, never the brain. It is to be noticed that, from a grammatical point of view, the *kephalaion* is the neuter singular of the adjective *kephalaios* ("of the head"), a neuter used as a noun. Thus, Athenaeus speaks, for example, about the *kephalaion* of a kid (*eriphou*), "boiled whole and split open", which was served with other meats.[39] Or he mentions the "head of a tuna", together with other fish.[40] If this is so, we have no need to translate the plural *kephalaia* by "head parts" or "pieces ... cut near the head", as in the Loeb translations of Athenaeus. *Glaukou kephalaia* or *goggrou kephalaia* mean merely "heads of grey-fish"[41] or of "conger".[42] Returning to the inscription of Kos, I would like to add that the misleading sense attributed to the word *kephalaion* creates some problems of translation.

Let me be more explicit by means of three examples. The phrase χαλκέων καὶ κερα[μέ|ω]ν ἑκατέροις τὸ κεφάλαιο[ν] is translated as follows: "to each of the smiths and potters, the brain"; "*à chacun des forgerons et des potiers, une partie de la tête*" ; *"à chacun des forgerons et des potiers, de la cervelle."*[43] However, the question here concerns the distribution of the parts of *one* animal, that is the ox sacrificed to Zeus Polieus, and I do not see how the "brain", or "a part of the head" could be given to "*each* of the smiths and potters".[44] I would suggest that the adjective *hekaterois* in this case means "both", i.e. the one and the other, as sometimes the adverb *hekateros* does in Plato, for instance, or in an inscription of Priene, where we read that "the edict must be written in both", τὸ διάταγμα ἑκατέρως γραφέν, that is in each of the two languages, Greek and Latin.[45] So it would be possible to translate: "to both smiths and potters, the head", thus leaving to these two groups the task of distributing the head among them. Finally, we can

[34] *LSAM* 70; *CGRN* 183 (*c.* 330–100 BC), lines 4–8. I think that we must try to use the most accurate words in order to distinguish and to translate three Greek terms we find in religious regulations: σπλάγχνα, ἔντερα, ἐντόσθια (or ἐνδόσθια in this inscription). In English, a possible translation could be the following: viscera, intestines, innards (or entrails).

[35] Sokolowski *LSAM* 70, p. 165; Carbon, in Carbon & Pirenne-Delforge 2013, 113.

[36] On these groups of officials, their action and responsibilities (*hieropoioi*, *hierothytai*, *hieromnemones*, *epimeletai*, *epistatai*, *epimenioi*, *naopoioi*, *neokoroi*, etc.) cf. Georgoudi, in Georgoudi & Pirenne-Delforge 2005, 31–60.

[37] *LSCG* 151 A–D; *IG* XII.4 278; *GHI* 62; *CGRN* 86 (*c.* 350 BC), A lines 54–55.

[38] Brain: Rhodes & Osborne in *GHI*, p. 303; "(half?) the brain"; *CGRN* 86, see commentary on A lines 47–58; Sokolowski, *LSCG* 151 A, p. 257: "Κεφάλαιον *est probablement 'cervelle'*"; Le Guen-Pollet 1991b, 21 (who writes erroneously κεφαλαῖον, instead of κεφάλαιον): "*la cervelle*"; Svenbro 1987, 72: "*la cervelle*"; Paul 2013b, 39–40 with n. 50, who rightly criticizes the association proposed by Svenbro between this meaning (brain) and the birth of Athena from the head of Zeus.

[39] Philoxenos of Leukas (or of Cythera), dithyrambic poet (*floruit c.* 400 BC?), in *The Banquet* (Δεῖπνον), fr. 836b, 29 (Campbell 1993), *apud* Ath. 4.147d: καὶ κεφάλαιον ὅλον διαπτυχὲς ἑφθὸν … ἐρίφου παρέθηκε. In the same passage, Philoxenos enumerates "snouts, heads, feet" (ῥύγχη, κεφάλαια, πόδας); for the plural *kephalaia*, see *infra*.

[40] Callias I, poet of Old Comedy (5th century BC), in *Cyclopes* (Κύκλωπες), fr. 6 (Storey 2011), *apud* Ath. 7.286b: θύννου τε κεφάλαιον τοδί.

[41] Sotades, poet of the Middle Comedy (4th century BC), in *Locked up* (Ἐγκλειόμεναι), fr. 1, 5 (Kassel & Austin), *apud* Ath. 7.293b: γλαύκου … κεφάλαια παμμεγέθη δύο (cf. transl. C.D. Yonge: "two large heads of grayling").

[42] Archedicos, poet of the New Comedy, in *The treasure* (Θησαυρός), fr. 3 (Kassel & Austin), *apud* Ath. 7.294b: γόγγρου κεφάλαια (cf. transl. C.D. Yonge: "a large conger's head").

[43] See respectively: Rhodes & Osborne in *GHI*, p. 303; Paul 2013b, 39; Svenbro 1987, 72.

[44] In the commentary of *CGRN* 86 (A lines 47–58) it is supposed that each group would "receive half of the head", considering that κεφάλαιον means "half of the head ... or merely some parts of the head".

[45] Pl. *Leg.* 10.895e: "in either case"; *I.Priene* 14, line 30 (Letter of Paulus Fabius Maximus, proconsul of Asia, *c.* 9 BC). On this meaning, see *Great dictionary of the Greek Language*, *s.v.* ἑκατέρως.

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add to this section a fragment of the civic sacrificial calendar of Athens, where, according to the interpretation of Stephen Lambert, the herald (κῆρυξ) receives some "cash payments in lieu of the parts of the animal listed", including the head (κεφαλῆς).[46]

Let me add *in fine* another term referring to the head. According to a regulation concerning sales of priesthood at Miletos, if one sacrifices an ox, those who "purchase the priesthoods" receive, with other parts of the animal, the *koryphaia* (neuter in plural).[47] This word does not mean simply "*des parts de tête*",[48] or "head-parts", as is sometimes translated following the *LSJ* (*s.v.* κορυφαῖον, II), but the term designates, in this case, "parts *at the top* of the head",[49] according to the meaning of the adjective *koryphaios*, that is at the extremity of the head.

Finally, the head can sometimes be offered to gods with other parts of the sacrificial animal. According to an inscription recording the foundation of a sanctuary of the god Men by Xanthos, a Lycian slave employed in the Laurion silver mines in Attica, it is prescribed to "furnish for the god what is due, a right leg and the skin and a head and the feet and a small breast and oil on the altar and a lamp and faggots and a libation."[50] Other offerings to god were deposited on the *trapeza*, and it is stated that if a person sacrifices to Men and "fills up the table for the god", he can take half (of what is offered there).[51] Thus, there exist two places, distinctly separated: the altar (βωμός) for what is consecrated entirely to the god; and the table (τράπεζα), sometimes called *hiera* (sacred) *trapeza*, where substantial parts of the animal are offered to the divinity. Later on, these parts can be taken away by the priest/priestess, other officials or the sacrificants, as is the case here in the sanctuary of Men (see *infra*, on *trapezomata*). If it is so, we must not confuse these two spaces and translate the word βωμός by "altar(-table)", as does Robertson (*op. cit.*), considering that "all these things are consecrated to the god [I suppose on the "altar(-table)"] and thereby made available to be consumed or appropriated by the worshippers." This opinion results perhaps from a fixed idea according to which the gods "do not eat", but they are only satisfied with the smoke of the "femurs" (the "thigh-bones" of certain scholars, see *supra*, *note 32*), burned on the altar. One could suppose that this generosity of Xanthos towards Men would be an exceptional feature of a private cult foundation. However, the example from the Attic deme of Phrearrhioi (see *infra*) shows that the gods can receive significant parts of the animal on their altars.

Splitting the head and its parts

It is well known that the sacrificial act is first of all an act of division and repartition. The animal is not only divided in its main parts, but each part is often divided in some pieces which no doubt had a meaning for the participants. So it is with the head. When it is only a question of a *kephale* in the religious regulations, without any other indication or precision, we can say that the whole head is given, deposited or offered. However, the head can be divided in two parts, and in this case, each part can be called κεφαλῆς τὸ ἥμισυ, "half of the head", as we have seen at Iasos and we will see at Ialysos (see *infra*); this can be also called *hemikraira* in the feminine. We have a good example of this last term in the fragmentary sacrificial regulations concerning Eleusinian cults in the *demos* of Phrearrhioi, in southern Attica, where a distinction seems to be drawn between portions given as priestly perquisites (*hierosyna*), and portions offered on the altars (*epi tous bomous*), in honor of the divinities, including μηρούς, μασχαλίσματα, ἡμίκραιραν ("thighs, flesh cut off from the armpits,[52] half the head").[53] This last word also appears in literary sources, as, for example, in Ameipsias, a poet of the Old Comedy, who refers to *hemikrair' aristera* ("left half of the head"), as part of priestly perquisites (*hierosyna*).[54] However, we must not, in

[46] *LSS* 10; Lambert 2002, group A, fragment 3, col. 2, lines 41–43 and 55–56, pp. 376–377. See now *CGRN* 45 (side A: 403/2–400/399 BC, side B: *c.* 410–404 BC).

[47] *LSAM* 44; *CGRN* 39 (*c.* 400 BC), lines 10–13.

[48] As Le Guen-Pollet 1991a, no. 44, p. 148, translates; but cf. a different and more appropriate translation by the same author, in Le Guen-Pollet 1991b, 20: "*un morceau situé à l'extrémité de la tête.*"

[49] This is also what proposes, but with hesitation and a question mark, the translation in *CGRN* 39 (see the commentary on lines 10–13). Cf. Lucian, *Lexiphanes* 5: τὴν κορυφαίαν (tuft on the crown of the head).

[50] *IG* II² 1366 (1st century AD); *LSCG* 55, lines 9–11: παρέχειν δὲ καὶ τῶι θεῶι τὸ καθῆκον, δεξιὸν | σκέλος καὶ δορὰν καὶ κεφαλὴν καὶ πόδας καὶ στηθύνιον καὶ ἔλαιον | ἐπὶ βωμὸν καὶ λύχνον καὶ σχίζας καὶ σπονδήν (translation of Robertson 2010, 335, n. 55, slightly modified). Cf. Lupu (*NGSL*), 11–13 (on the analogies between Xanthos' inscription and the documents from the Amphiareion and from the Thesmophorion in the Piraeus).

[51] Line 20: ἐὰν δέ τις τράπεζαν πληρῶι τῶι θεῶι, λαμβανέτω τὸ ἥμισ[υ]. The phrase τράπεζαν πληρῶι τῶι θεῶι recalls the term τραπεζοπλησία, "table-filling", attested for the first time in the recently found inscription of Marmarini, where a "complete table-filling ritual for the goddess" is described in detail; see now *CGRN* 225 (*c.* 225–150 BC, edition of the text by Carbon and Crowther, with commentary and bibliography), B lines 44–45: ἂν δέ τις τραπεζοπλησίαν βούλη|ται ποιεῖν τῆι θεῶι. On the cult tables and the distinction between altar and *trapeza*, the study of Gill 1991 is always necessary. On the table of Men, cf., among others, Levick 1971.

[52] I translate μηρούς by "thighs" (and not by "thighs-bones"), in complete agreement with the translations of Simms 1998, 94 and Lupu (*NGSL*), 162 (but, in his commentary, lines 16–17, p. 166, Lupu seems to hesitate about the meaning of μηρούς, when he says: "thighs, *likely* thighbones", without any explanation; italics are mine). On μασχαλίσματα, see Lupu 2003; cf. also Carbon 2017, 160, 168.

[53] *NGSL* 3; *CGRN* 103 (*c.* 300–250 BC), lines 5 and 19–20 (ἱερώσυνα), and lines 15–21 (portions offered on the altars).

[54] Ameipsias, fr. 7 (Kassel & Austin = Storey 2011), *apud* Ath. 9.368e: δίδοται μάλισθ' ἱερώσυνα, κωλῆ, τὸ πλευρόν, ἡμίκραιρ' ἀριστερά. The

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my opinion, confuse the ἡμίκραιρα of this document with the expression ἡμίκραιρα χορδῆς, which we find, for instance, in Athens, in two inscriptions: in a fragment from Athens about priestly portions and tariffs, and especially in the important inscription from the Attic *demos* of Aixone, referring to accounts for priestly perquisites and other sacrificial expenses.[55] This expression has been translated by certain scholars as follows: a) "a half-head [filled with entrails/sausage (?) ...]; b) "a half-head stuffed with intestines (or half a 'head' of sausage?)"; c) "a half-*kraira* of blood sausage"; d) "a half-head of (that is, stuffed with?) sausage/tripe"; e) "probably a half head of the animal ... stuffed with intestines or sausage made from these (χορδή)"; f) "*une moitié de tête farcie de boudin*"; g)"*une demi-tête farcie de boyaux* (?)."[56] I doubt the exactitude of these translations. On the one hand, it seems to me very strange to cut the head of the sacrificial animal in two halves, in order to stuff the one half with sausage, tripe, intestines or anything else, a procedure unknown until now among the variety of sacrificial practices—if I am not mistaken—even if we cannot exclude such a possibility. On the other hand, a "head" or "a half-head" can have here a metaphoric sense, as in modern Greek, where we can say a "head" of cheese, in order to indicate the spherical form of a cheese,[57] and in this case a "half-head" would be the *half* of this "round" cheese. There is even a kind of cheese called in modern Greek *kephalotyri*, "head-cheese". Now, the editor of the inscription of Aixone, the Greek archaeologist Steinhauer, had perfectly rendered, in modern Greek, the sense of this peculiar expression: thus ἡμίκραιρα χορδῆς means, as he writes, μισὴ (half of) γαρδούμπα.[58] The γαρδούμπα is a kind of dish, sometimes presented in a round form, and made of the intestines of sheep or goats, of their χορδαί.[59] So we could say, following Steinhauer, a "half" of γαρδούμπα, or a "half-head" of bowels.[60]

Before I try to examine, even briefly, two significant parts of the animal's head, the brain and particularly the tongue, let us have a rapid glance at some other parts, more or less frequently mentioned in the religious regulations. First of all the snout, the ῥύγχος, of which we have at least two certain testimonies. According to a fragmentary inscription from Erythrai, the snout, with other portions, is placed on the altar (*epi tom bomon*), which shows that this "extremity" of the head, so to speak, could be considered an offering acceptable by the gods.[61] As has been noticed (cf. commentary in *CGRN* 80), the context of this sacrificial regulation is lost, and many things remain unclear. Nevertheless, if the fragment A refers to parts of the animal put on the altar (ἐπὶ τὸμ βωμ[ὸν …]), it is important to note, in my view, that these parts include not only the snout, but also the tongue and the head (l. 6: καὶ κεφα̣[λὴν …]). Some scholars, probably not accepting the possibility to grant Greek gods substantial portions on the altar, give to *bomos* the sense of *trapeza*, on which the divine parts are deposited.[62] Or otherwise, they suppose that the offerings may go to the priest "perhaps placed on a cult table or possibly *on an altar* (*though not in the fire*)."[63] Instead of trying to invent different, tortuous solutions for this kind of problem, I think that it would be more judicious to admit that, in certain places and according local usages, Greek gods could sometimes enjoy more than the "thigh-bones" or the "tail vertebrae" of the sacrificial animals. Returning to the snout, according to a fragmentary inscription of Didyma, the ῥύγχοι and other "extremities" of the animal body (ἀκροκώλια) are

half-heads of some animals were particularly appreciated, such as those of a shoat, which was considered very "tender" (ἡμίκραιρα τακερὰ δέλφακος): Krobylos, poet of the New Comedy, in *The false supposititious* (Ψευδυποβολιμαῖος), fr. 6 (Kassel & Austin), *apud* Ath. 9.384c–d). Aristophanes uses this word, jokingly, with regard to a man's head/face (*Thesm*. 227): τὴν ἡμίκραιραν τὴν ἑτέραν ψιλὴν ἔχων ("with your half-face shaven like that?").

[55] Athens: *LSCG* 22; *CGRN* 61 (*c*. 350 BC), line 8: σκέλος, πλευρόν, ἡμίκραιρα[ν χορδῆς..?..]. Aixone: *LSCG* 28; *CGRN* 57 (*c*. 400–375 BC), lines 8–9: ἐπὶ δ[ὲ] τὴν τράπεζαν κωλῆν, πλε|υρὸν ἰσχίο, ἡμίκρα[ι]ραν χ[ορδ]ῆς (cf. the same phrase in lines 3–4, 10–11, 14–16, 18–19 and 22–23).

[56] See in this order: a) *CGRN* 61 (Athens); b) *CGRN* 57 (Aixone); c) Scullion 2009, 154; d) Parker 2010, 194; e) Carbon 2017, 167–168; f) Le Guen-Pollet 1991a, 152, no. 46; g) Ackermann 2007, 115.

[57] Cf. what is called in French *tête-de-Maure*, designating a cheese of round shape.

[58] Steinhauer 2004, 162.

[59] Cf. Euboulos, poet of the Middle Comedy, in *The Laconians* or *Leda* (ἐν Λάκωσιν ἢ Λήδᾳ), fr. 63, 3 (Kassel & Austin), *apud* Ath. 7.330e: χορδαί τ' ἐρίφων, "kids' intestines". More specifically, χορδαί in modern Greece refer to the thin intestines of sheep and goats; cf., in general, *Great dictionary of the Greek language*, *s.v*. χορδή.

[60] Thus, the guess of Scullion (2009, 154, n. 5) "that ἡμίκραιρα means a 'half-measure' of some kind", a suggestion dismissed finally by the author, as by other scholars, seems to be, in my final analysis, a good intuition.

[61] *LSAM* 21 + 22; *CGRN* 80 (*c*. 350 BC), fragment A, lines 2–4; *I.Erythrai* 203 (fragment A) and 204 (fragment B).

[62] Cf. Sokolowski *LSAM* 21, p. 59. In order to justify this identification, Sokolowski refers to a decree concerning the priesthood of Asklepios at Pergamon (*LSAM* 13; *CGRN* 206); however, in this inscription, we are not in the same context: there is no altar, but only the term *trapezomata*, the offerings which are set on the cult-table for the gods, and which can often end up, partially or totally (as in this case), as the perquisite of the priest. In any case, I do not believe that Greeks would make such a confusion between these two words.

[63] As Lupu (*NGSL*), 320, thinks, comparing his document 21 (Thasos, fragmentary sacrificial regulations = *CGRN* 28) with *LSAM* 21 (italics are mine); cf. also Dimitrova 2008, 255 n. 55 (who follows Lupu): "Although it is unlikely that these were burnt." The translation of the word βωμός by "altar(-table)", in the cult foundation of Xanthos (Robertson 2010, 335, n. 55) indicates a similar point of view (see *supra*).

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sold by weight, after having deducted the "third part" (τὸ τρίτον μέρος), reserved probably, according to Sokolowski, for the cult personnel.[64] We will return to this regulation which poses the question of the sale of sacrificial meat, but, before that, I would like to draw attention to a remark by Athenaeus about the term ῥύγχος. This word, he says, "is properly applied to swine", but "it may be applied also to other animals ... and even be said playfully of the (human) face." As proof of this, Athenaeus quotes Archippos, a comic poet, who speaks about a man saying: "And he, with a snout so long ..." Even the gods will not escape this kind of irreverent joke: in fact, Athenaeus continues, Araros, another comic poet, refers to Adonis in these terms: "For the god is turning his snout toward us."[65]

Athenaeus again (3.95a–e; 107c), quoting many comic poets, often mentions the snout, particularly that of a pig, with its ears, called ὠτία or ὠτάρια. However, in a few rare epigraphic references, these are named οὖς, or οὔατα in the plural. In the sacrificial calendar of the city of Kos, the priest who sacrifices for Demeter an adult male sheep and an adult pregnant (ewe) takes as perquisites only the ears (οὔατα), a very small, nearly symbolic portion, even if it is an edible one.[66] Anyway, I note that, on the stele A, it is the only sacrifice where the priest, who sacrifices and provides the *hiera*, obtains so little. At first sight, we may suppose that the reason for these negligible *gera* could be the fact that it is prohibited to "take away" the meat of these two sacrificial animals (line 61: τούτων οὐκ ἀποφορά). As a matter of fact, in all other sacrifices for Hestia, Zeus Polieus, or Athena Polias, where no such interdiction exists, the priest obtains as perquisites much more, that is the skin and a leg. The same *gera* are prescribed for the *hiereus*, even in the sacrifices of a piglet and a kid in honour of Dionysos Skyllitas, where it is prohibited to "take away" meat from only *one* of the two animals, namely the piglet.[67] We could thus make the hypothesis that in cases of absolute interdiction to "take-away", such as for the two animals immolated to Demeter, *all* the meat ought to be eaten *in situ*, leaving only a small part to priest. Anyway, if this hypothesis could be supported by the stele A, it comes up against a difficulty if we take in consideration the whole sacrificial calendar of Kos, because stele D mentions the sacrifice of a pregnant ewe to Rhea, with the interdiction to "take-away" (τούτων οὐκ ἀποφορά), but in this case the ἰαρεύς who sacrifices obtains as perquisites the skin ([γ]έρη λαμβάνει δέρμα).[68] Nevertheless, in favor of our hypothesis, we can remark that the *gera* here are limited to the skin, the *derma*: no edible part of the animal is given to the priest. I would like also to point out that even if, according to Carbon,[69] "one might view the ear as symbolizing a smaller portion of the head reserved for the priest", nevertheless the *hiereus* of Demeter seems less privileged than the priest of Rhea, who could take more advantage of the skin.

Finally, we find again the ears in a long regulation of the phratry of the Demotionidai in Attica (*IG* II² 1237). The beginning of this substantial document alludes to two types of sacrifices concerning the *meion* and the *koureion*, the two rites concerning the induction of children (παῖδες: lines 70, 80–81) in the group of the phratry. Here, in *both* cases, the priest of Zeus Phratrios receives an ear, but, contrary to the priest of Demeter at Kos, he also obtains other portions of the sacrificial animal (a ham, a rib, but also a cake, some wine etc.), probably because, in this regulation, we are not dealing with the particular obligation of οὐκ ἀποφορά ("no take-away").[70] We can suppose, following Herbert William Parke, that "the father [who introduced his children to the phratry] and its family and friends had the remainder of each victim for a feast with ... cakes and wine as the father could afford".[71]

Athenaeus mentions different kinds of meat "prepared with water" (τῶν ἐξ ὕδατος κρεῶν πολλά), such as feet, heads, ears, tongues, guts, etc., but also σιαγόνες, jawbones. However, until now I have not found this part in the religious regulations, despite the fact that, according to this passage of Athenaeus, the *siagones*, as with the other meats, are sold in the so-called "boiled-meat shops" (ἑφθοπώλια), such as those in Alexandria.[72] It is well known that in Greece portions of

[64] *LSAM* 54 (*c.* 300–250 BC), lines 1–4. Robert 1945, 49–50. Cf. Carbon 2017, 171. See *I.Didyma* 482, lines 4–6: τῶν δὲ ῥυγχέων καὶ τῶν ἀκροκω|λίων ὑπολογίζεσθαι τὸ τρίτον | μέρος.

[65] Ath. 3.95d–e: ὅτι δὲ κυρίως λέγεται ῥύγχος ἐπὶ τῶν συῶν ... ὅτι δὲ καὶ ἐπ' ἄλλων ζῴων ... κατὰ παιδιὰν εἴρηκε καὶ ἐπὶ τοῦ προσώπου; Archippos, a poet of the Old Comedy, contemporary of Aristophanes, in *Amphitryon* (Ἀμφιτρύων), fr. 1 (Storey 2011), *apud* Ath. 3.95e: καὶ ταῦτ' ἔχων τὸ ῥύγχος οὑτωσὶ μακρόν; Araros, poet of Middle Comedy, son of Aristophanes, in *Adonis* (Ἄδωνις), fr. 1 (Kassel & Austin), *apud* Ath. 3.95e: ὁ γὰρ θεὸς τὸ ῥύγχος εἰς ἡμᾶς στρέφει.

[66] *CGRN* 86, A lines 60–62, month of Batromios (see *supra*, *note 37*): Δά[μ]|ατρι οἷς τέλεως καὶ τελέα κυέουσα, τούτων οὐκ ἀποφορά ... | ... θύει ἱερεὺς [καὶ ἱερ]ὰ παρέχει· γέρη δὲ οὔατα; cf. Paul 2013b, 379, 381.

[67] *CGRN* 86, A lines 58–60: Διονύσωι Σκυλλίται χοῖρος [καὶ] | ἔρι-φος, τοῦ χοίρου οὐκ ἀποφορά· θύει ἱερεὺς καὶ ἱερὰ παρέχει· γέρη [λ]|αμβάνει δέρμα καὶ σκέλος; cf. also lines 63–64.

[68] *CGRN* 86, D lines 3–5 (month of Karneios): Ῥέαι οἷς κυεῦσα καὶ ἱερὰ ... | ... τούτων οὐκ ἀποφορά· θύει ἰαρεὺς καὶ ἱερὰ παρέχει· [γ]|έρη λαμβάνει δέρμα.

[69] Carbon 2017, 169, in reference to the regulation of the Demotionidai (see *infra*).

[70] *LSCG* 19; *GHI* 5; *CGRN* 74 (396/395 BC), A lines 4–7: ἱερεώσυ-να τῶι ἱερεῖ διδόναι τ|άδε· ἀπὸ τô μείο κωλῆν, πλευρόν, ὄ|ς, ... ἀπὸ τô κορείο κωλῆ|ν, πλευρόν, ὃς ... Cf. Lambert 1993, esp. 285–293; Carbon 2017, 169. On the problematic sense of the two rites, μεῖον and κούρειον, cf., among others, the commentary in the *CGRN* (with references); Parker 2005, 458–460 (with bibliography).

[71] Parke 1977, 89. On the induction of the children to phratries by their fathers, cf. Isaeus, 8.19; *Souda* and *Etym. Magn.* s.v. Ἀπατούρια.

[72] Ath. 3.94c; a brief fragment of comedy gives the impression that the "jawbones of an ox" were appreciated; see Cratinos, poet of Old Comedy,

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meat distributed after the sacrifice could be sold, as was shown by Guy Berthiaume and as we see in an important inscription of Bargylia, concerning the oxen sacrificed to Artemis Kindyas: after having removed the parts reserved for the priest and other magistrates, as well as those distributed among the citizens, "by tribes" (κατὰ φυλάς), the skins and the other parts that "remained" (τὰ περιγενόμενα) are to be sold.[73] I will merely return to the fragmentary regulation of Didyma (see *supra*, *note 64*), which orders the sale by weight of snouts and extremities, as we have seen, but also devotes a particular section to the "heads of the sheep"[74]: after having cleaned these heads and cut off the horns, the butchers, the *mageiroi*, will put them up for sale (πωλεῖν: line 8). So, for the Greeks, the sale and eating of heads and other parts of sacrificial animals posed no problem, contrary to the Egyptians who, according to Herodotus (2.39), had a horror of such heads. In fact, when the Egyptians sacrifice, "they cut the throat (σφάζουσι) of the sacrificial animal (ἱρηίου), and having done so they sever the head from the body. They flay the carcass of the beast (κτήνεος), then invoke many curses on its head (κεφαλῇ δὲ κείνῃ πολλὰ καταρησάμενοι), which they carry away. Where there is a market, and Greek traders in it, the head is taken to the market and sold; where there are no Greeks, it is thrown into the river. The imprecation which they utter over the heads is that whatever ill threatens those who sacrifice, or the whole of Egypt, "may fall upon that head" (ἐς κεφαλὴν ταύτην τραπέσθαι). For this reason, "no Egyptian will taste of the head of anything that had life" (οὐδὲ ἄλλου οὐδενὸς ἐμψύχου κεφαλῆς γεύσεται Αἰγυπτίων οὐδείς), contrary to the Greeks who enjoy this dish even if, for a physician such as Mnesitheus of Athens, the head and feet of a pig, for example, "contain little nourishment or fat".[75]

Now, if the term *siagones*, jawbones, seems to be absent from religious regulations, we can at least find another possibly related word, *gnathos*, in a contract for the sale of a female priesthood at Chios, in an unknown cult, an inscription that was meticulously published by Robert Parker.[76] More precisely, if one offers a sacrifice, one must give to the priestess, among other parts, "a left *gnathos*" (<γ>νάθον εὐ[ώ]νυμο[ν.?..], line 11). The word *gnathos* generally means "jaw", as for example in the *Art of Horsemanship* of Xenophon (1.9), where the author says that a good horse must not have "unequal jaws" (μὴ ὁμοίας τὰς γνάθους), but one must notice whether *both* jaws are soft or hard, or only one. However *gnathos* also means "cheek", with regard to humans and animals, for example in Aristotle's *Historia Animalium*, or in Hippocrates' *Ancient Medicine*.[77] So, the priestess probably received "the left cheek", as Parker precisely remarks. However, I am not sure that the expression "left *gnathos*" could mean that she possibly obtained "the whole *left side of the head*", as Parker also supposes, considering that there is "a similarity in meaning between ἡμίκραιρα, 'half of the head or face' and *gnathos*".[78] The term ἡμίκραιρα is composed of ἡμι- + κραῖρα ("head, top, extremity"); and even if it would be associated with κάρα, this word, in relation with humans or animals, means "head", not "face".[79] From this point of view, the reference to ἡμίκραιρ' ἀριστερά ("left half of the head"), mentioned by the poet Ameipsias as part of *hierosyna* (see *supra*, with *note 54*), does not help, in my opinion, to establish a similarity with the "left *gnathos*".

Referring to pig's brains (ἐγκέφαλοι χοίρειοι), Athenaeus says that the philosophers do not allow to eat them, considering that those who partake of them act as if they eat beans, which is an abomination equal to that of eating the heads of one's parents. We recognize here certain philosophical doctrines to which Plutarch, for example, refers, when he says that the Orphics or the Pythagoreans held the egg to be taboo, as "some hold the heart and brain", because they thought it "to be the first principle of creation" (ἀρχὴν … γενέσεως). "At any rate", continues Athenaeus, "none of the ancients had ever eaten pigs' brains, because they were the seat of nearly all senses" (τὰς αἰσθήσεις ἁπάσας σχεδὸν ἐν αὐτῷ εἶναι). And Apollodorus the Athenian even says that "none of the ancients (τῶν παλαιῶν) ever named the brain", preferring, as Sophocles did in his *Trachiniae* (781), to use the word "white marrow" (οὐκ ὀνομάσαι ἐγκέφαλον, ἀλλὰ λευκὸν μυελόν).[80]

However that may be, this kind of prohibition did not prevent the Greeks from eating the brain of animals, which indicates that the impact of certain philosophical beliefs or movements on the cult practices of Greek cities is very questionable.

in *Wealth-Gods* (Πλοῦτοι), fr. 174 (Storey 2011), *apud* Ath. 3.94e: περὶ σιαγόνος βοείας μαχόμενος ("fighting for the jawbone of an ox").

[73] Berthiaume 1982, in particular 62–70. The inscription of Bargylia consists of three decrees (late 2nd–1st century BC), of which the first ψήφισμα refers to the sale of sacrificial meat: *SEG* 45, 1508 A; Deshours 2011, 263–275, no. 24, Texte A lines 9–15 (with previous bibliography).

[74] *I.Didyma* 482, lines 6–7: [ὑ]πὲρ τῶν κεφαλῶν τῶν | προβατείων.

[75] Mnesitheus (early 4th century BC), *On edible substances* (Περὶ ἐδεστῶν), fr. 40 (Bertier), *apud* Ath. 3.96d: οὐ πολὺ τὸ τρόφιμον καὶ λιπαρὸν ἐν ἑαυτοῖς ἔχουσι.

[76] Parker 2006; *CGRN* 37 (*c.* 425–375 BC).

[77] Arist. *Hist. an.* 1.13.493a 29 and 3.11.518a 2 (humans), 3.12.519a 22 and 6.25.578a 8 (animals). Hippoc. *Anc. Med.* 19.

[78] Parker 2006, 76. This supposition is due perhaps to the fact that certain dictionaries (cf. *LSJ s.v.*) give to the word ἡμίκραιρα the sense of "half the head *or face*" (italics are mine). But when a comic poet, such as Aristophanes, can joke by identifying *hemikraira* with "half the face" (see *supra*, *note 54*), he refers to a man, not to an animal.

[79] See *DELG s.v.* κάρα. As for ἡμίκραιρα, it is possible to give to the word κάρα the metaphorical sense of "face", as in Soph. *El.* 1310, or *OC* 285–286; but, here again, this concerns humans, not animals. Moreover, as Chantraine notes, κάρα, with the genitive, can indicate, in tragedy, the person; as an example, cf. Soph. *Ant.* 1: Ἰσμήνης κάρα, with the commentary of Jebb 1902: "κάρα: the periphrasis (as with κεφαλή) usu. implies respect, affection or both".

[80] Ath. 2.65f–66a; Plut. *Quest. conv.* 3.1 (*Moralia* 635e).

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I do not think either that the rare mentions of the brain in the religious regulations are due to this type of philosophical reflection, as Lupu supposes, claiming that it "may be ascribed to a prohibition against eating the brain or even mentioning it by name." Anyway, even if Lupu recognizes *in fine* that this "prohibition was nevertheless ignored", he concludes, following Brigitte Le Guen-Pollet, that "brain-eating was practiced and tolerated even in cases when *explicit reference to it was avoided.*"[81] Instead, it is very probable that when the head was given as part of the honorific perquisites, without other precisions, there was no need to mention separately the brain or other parts of the *kephale*. Yet why, in this case, in two inscriptions also cited before, from Iasos and Ialysos respectively, is the *egkephalos* mentioned separately? In fact, at Iasos, in a contract for the sale of the priesthood of the Mother of Gods, it is prescribed that the priestess will receive the "right leg and half of the head and the tongue and the brain", and other parts from one of the animals sacrificed by the city, choosing the *hiereion* she wants.[82] At Ialysos, we have a very enigmatic short fragment of a sacrificial regulation, in the context of an unknown cult, where some sacrificial portions are enumerated, and in the second line, "half of the head, a tongue, a brain" are mentioned.[83] In the two inscriptions, the *egkephalos* thus appears with the "half of the head", with τὸ ἥμισυ of the κεφαλή. So, it is reasonable to infer that whoever obtains a half of a head—when it is divided in two parts—will also take the tongue and the brain, cut out of this head, two head-portions which could eventually, in other circumstances, be reserved for another recipient. I note, by the way, that, as has been rightly remarked in the commentary of the Ialysos' regulation in the *CGRN*, these sacrificial parts were very probably priestly prerogatives, but that "there is ... a possibility that the portions were also, or at least partially, meant as a divine offering, to be burned on the altar." I think that this is a very plausible supposition corroborated by other examples which show, as is noted also in that commentary, that "several of the portions, mentioned in the list" of Ialysos are found in other regulations as divine offerings, for example, in the regulation of the *demos* of Phrearrhioi (see *supra*, with *note 53*).

To this small dossier of the brain, I add finally an important document, which constitutes a valuable proof of the sale and, consequently, of the eating of the brain, among other animal parts. This is an inscription found in the Piraeus, known as the *agoranomic* inscription, and dating in the 1st century BC. It was dedicated by an unknown *agoranomos* named Aeschylus, son of Aeschylus, and concerns the sale of certain parts of pigs, goats, sheep, or cattle, such as heads, feet, liver, lungs, etc., but also brain. We know from the *Athenian constitution* of Aristotle (51.1), that the *agoranomoi* were "Market-controllers ... elected by lot, five for Piraeus and five for the city." Their duty, assigned by the laws, was the "superintendence of all merchandise" in order "to prevent the sale of adulterated and spurious articles." I will not go here into the details of this interesting inscription, edited with much care by Steinhauer.[84] I note only that the brain (ἐνκέφαλος, as is written here) is mentioned for *each* of the four animal species; for the pigs: [ὑείων], lines A 1 and B 8 (ὑείων); for goats: αἰγείων, line A 12; for bovines: βοείου, lines A 24 and B 23; for goats and sheep: αἰγεί[ων ἢ προβ]ατείων, line B 16 (I follow the numbering of Bresson). According to Steinhauer (p. 64), in this document, the price of the brain is the lowest of all portions, thus reflecting "*des conceptions philosophiques et diététiques antiques concernant ce plat.*" It is true that a medical writer, Oribasius (4th century AD), quoted by Steinhauer, consider the brain as a food "hard to digest" and "bad for the stomach", although, he adds: "if it is well cooked, it gives to the body a fairly good nourishment."[85] However, we must not give an absolute value to this kind of information: the brain of sacrificial (or non-sacrificial) animals was eaten by people and accepted by gods.

Tongues/the tongue

To cap this description of the sacrificial head, albeit inevitably incomplete, I would like to make some remarks about the tongue, the *glossa*, an important part mentioned most often, after the head, in our epigraphic corpora.[86] In the majority of the regulations, the tongue is included among the perquisites with other parts of the animal where, however, the *kephale* is absent. I have found, for the moment, only five cases where *kephale* (or half of it) and *glossa* are mentioned together: in the two regulations of Iasos and Ialysos, where the tongue is cited between the half-head and the brain (see *supra*, with *notes 82* and *83*); in the two decrees concerning the priesthood of Eleithie at Chios (see *supra*, with *notes 24–27*), where however, as we have seen, the tongue and the head do not concern

[81] *NGSL*, p. 313 (italics are mine); Le Guen-Pollet 1991b, 21.

[82] Maddoli 2015; *CGRN* 196 (225–200 BC), lines 13–14: σκέλος τὸ δεξιὸν καὶ τῆς κεφαλῆς τὸ ἥμι|συ καὶ γλῶσσαν καὶ ἐγκέφαλον ... See also *supra* with *note 29*.

[83] Pugliese Carratelli 1955–1956, 14 (p. 164); *LSS* 93; *CGRN* 180 (*c.* 300–150 BC), line 2: κεφαλᾶς ἥμυσυ (sic), γλῶσσαν, ἐγκέφαλον. Cf. also Carbon 2017, 167.

[84] Steinhauer 1994; *SEG* 47, 196 A + B. See now Bresson 2000, esp. chap. 8: '*L'inscription agoranomique du Pirée et le contrôle des prix de détail en Grèce ancienne*'.

[85] Oribasius, *Collectiones medicae* (Ἰατρικαὶ Συνταγαί) 2.35: δύσπεπτον ... καὶ κακοστόμαχον ὁ ἐγκέφαλος ... εἰ μέντοι καλῶς πεφθείη, τροφὴν ἀξιόλογον δίδωσι τῷ σώματι.

[86] It seems that Aristophanes opposes the "oily things" (τὰ λιπαρά) which can render someone sick, to the tongue, but also to the flank, spleen or the tripe of a young boar, perhaps lighter and more digestible parts: cf. *Fry-cooks* (Ταγηνισταί), fr. 520 (Henderson 2007), *apud* Ath. 3.96c.

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the same sacrifice: the γλῶσσα is given to the priestess in the case of a private sacrifice, while the κεφαλή will be added to the perquisites in the case of a public sacrifice performed by the city; finally, in a fragmentary inscription of the 2nd century AD, from Phanagoria at Black Sea, where the words *kephale* and *glossa* are partially restored, in an ambiguous cult context. This last document, in spite of its state of uncertainty, seems to refer to a sacrifice (but to which divinity?), where thighs and perhaps the head would be "burnt whole" (εἰς ὁλοκαύστησιν), while the priest would receive "legs [completely restored] and tongue and the skin"—another possible example for substantial offerings to gods.[87] All that seems to reinforce the idea that the tongue can "be cut apart, separately" (ἡ γλῶττα χωρὶς τέμνεται), as Aristophanes says in *Peace* and in *Birds*, where he adds that this is a usage practiced "everywhere in Attica" (πανταχοῦ τῆς Ἀττικῆς).[88]

According to all the other regulations which I have explored until now, the tongue is particularly given to a priest, and we can remark its prevalence as a priestly portion at Chios. In fact, some inscriptions from Chios, but also from Miletos, mention the tongue in the *plural*, γλῶσσαι, which may mean that the priest will receive the tongue of *every* animal, independently of the number of the sacrificants or the nature of the sacrifice, be it private or public. I would like to particularly point out four examples:

Firstly, the contract concerning the priesthood of Herakles or of other gods at Chios, in the context of cults administrated by a *genos*, where it is prescribed to give "the tongues" (γλώσσας) to the priest of Herakles, "whenever the *genos* sacrifices" (ὅταν τὸ γένος θύῃ) or "if an individual" (ἰδιώτης) makes a sacrifice.[89]

Secondly, the contract concerning the perquisites of the priest of Pelinaios, that is of Zeus honored with this toponymic epiclesis on the highest mountain of Chios, called Pelinnaion (not Pelinaios, as it has been written).[90] It seems that this text refers to private sacrifices, because it is prescribed that if the priest is absent and does not appear after been called out three times by the sacrificant (lines 8–9: βωσάτω [ἐ] | τρίς), this person can finally make the sacrifice himself—a prescription found also in the preceding contract with regard to sacrifices by individuals. These examples, which are not unique, show that, in reality, speaking in general of "private" sacrifices is quite misleading. Of course, we can say that the *idiotes* who sacrifices at home, by the hearth of the household, performs a "private" sacrificial act. But he often leads his animal to the sanctuary, that is to a *public* space of cult, where, in the absence of the priest, he can even accomplish the sacrifice, put the sacred portions on the altar and "pray himself for himself" (αὐτὸν ἑαυτοῖ κατεύχεσθαι), as, for example, the worshipper who wants to honor Amphiaraos must do at the sanctuary of Oropos.[91] That is another, very eloquent example, of this interconnection between private and public spheres, which characterizes Greek cult, a fact that pleads against the usual tendency to establish clear-cut oppositions.[92]

Thirdly, a regulation concerning sales of priesthood at Miletos: to those who purchase the priesthoods must be given certain portions and "all the tongues", not only from the animals sacrificed by the city, but also from those offered privately (except the skins), as it is prescribed (lines 13–15).[93]

Fourthly, two inscriptions, from Chios and from Miletos, where it is specified that one must give to the priest the tongue (here: in the singular) and other parts, in the case of one or more sacrifices: this signifies that the *hiereus* will receive the γλῶσσαν "from each sacrificial animal".[94]

Finally, I add to these examples another document from Chios, concerning a male priesthood of an unknown cult, where the γλάσσαι (in plural), given to the priest, show precisely the obligation to *cut separately* the tongue of any sacrificial animal, "whether one or many are offered".[95]

I note that having the tongue is not an exclusively male privilege as shown through the cases of the priestesses of Eleithie at Chios and of the Mother of Gods at Iasos (as we

[87] *LSCG* 89, lines 6–8: εἰς ὁλοκαύστησιν· μηρ[οὶ] | [...στέαρ εἰς] κάλυψιν τὸ ἀρκοῦν, κεφα|[λή· τῷ ἱερεῖ πόδες καὶ γλῶσ]σα καὶ ἡ δορά. On the term ὁλοκαύ(σ)τησις, cf. an inscription from the Asklepieion of Epidaurus, where it is more clearly specified: εἰς τὴν ὁλοκαύτησιν τῶι θεῶι (Peek 1969, no. 43; *IG* IV² 1, 97, lines 2, 23 and 26; 3rd century BC). On the μηρία burnt in honor of Apollo Parrhasios, near the Mount Lykaion, in Arcadia, cf. Paus. 8.38.8; Pirenne-Delforge 2008, 215.

[88] Ar. *Pax* 1060; *Av.* 1704–1705, with the commentary of Dunbar 1995, 743–744. Cf. *NGSL*, p. 312–313.

[89] *LSCG* 119; *CGRN* 50 (*c.* 400–350 BC), lines 1–3 (sacrifices of a *genos*); lines 6–7 (sacrifices of individuals). Cf. also Kadletz 1981, 26; Le Guen-Pollet 1991a, no. 42.

[90] *LSS* 129; *CGRN* 36 (end of 5th century BC), lines 1–3: [τῷ] ἱέρεω Πελιναί|[ο δ]ίδοσθαι γλάσ|[σα]ς. About the mountain Πελινναῖον, cf. Ael. *NA* 16.39.

[91] *LSCG* 69; *CGRN* 75 (*c.* 386–374 BC), lines 25–28; but in the case of public sacrifices, the priest himself must pray (lines 28–29): τῶν δὲ δη|μορίων τὸν ἱερέα. Cf. Sineux 2007, 139–142.

[92] On this question, cf. Georgoudi 1998.

[93] *LSAM* 44; *CGRN* 39 (*c.* 400 BC), lines 7–8: καὶ τὰς γλώσσας πά[σ]|ας; lines 13–15: ἀπὸ δὲ τῶν ἰδίως | [σύμ]παντα γίνεσθαι πλ|[ὴν τῶ]ν δερμάτων. Cf. Kadletz 1981, 26; Le Guen-Pollet 1991a, no. 44.

[94] Chios: *CGRN* 41 (fragment relating to a male priesthood, *c.* 425–350 BC), lines 11–12: [δί]δοσθαι τῶι ἱερεῖ γλῶσ[σαν ἀπ' ἑκά]|[στο]υ ἱερείου. Miletos: *LSAM* 46; *CGRN* 100 (concerning the priest of Apollo [Delphinios], *c.* 300–275 BC), lines 1–3: ἢν ἓν θ[ύη]ται, λά[ψε]|[ται γλῶσ]σαν … ἢν δὲ πλέω θύηται, λάψεται ἀπ' ἑκάστου … | … καὶ γλῶσσαν. Cf. Kadletz 1981, 27.

[95] *LSS* 78; *CGRN* 170 (*c.* 500–400 BC), line 7 (with the commentary); cf. Plassart & Picard 1913, 224–228, no. 31. For the Ionic form γλάσσα (= γλῶσσα), attested also in Herodas (Μιμίαμβοι 3.84: γλάσσαν, ed. Mandilaras, Athens, 1986), cf. *DELG, s.v.* γλῶχες.

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have seen above),[96] but also by the perquisites obtained by the prominent priestess of Dionysos at Miletos. Actually, if a woman wants to sacrifice to Dionysos, she must give to the *hiereia* a list of *gere* including the tongue.[97] It is true, however, that most often the regulations refer to priests, as some indicative examples show: the *hiereus* of Dionysos Phleos at Priene, who takes, from what the city sacrifices, a tongue, γλῶσσα, among other portions (but nothing is said of eventual sacrifices by individuals); or the priest of Poseidon Helikonios at Sinope, where however he can only receive the tongues of animals sacrificed publicly, not of those offered privately;[98] or else, the one who seems to combine the priesthoods of Zeus, Helios, and Poseidon at Thebes-on-the-Mycale, and obtain as perks of his office some parts of the sacrificial animals including the tongue;[99] or finally, the priest of an unknown divinity (possibly Hermes?) at Chios, who will receive γλῶσσαν among other parts and special Hermes-cakes (ἑρμέας: line 9, in the shape of a herald's wand according Hesychius).[100]

To these regulations may be added a law (νόμος) from Miletos concerning the sale of the priesthood of Asklepios *pro poleos* and of "all the gods sharing his *temenos*" (καὶ τῶν ἐντεμενίων αὐτοῦ θεῶν πάντων: A, lines 6–8). The tongue is included among a list of perquisites given to the priest by the *paidonomoi*, the supervisors of education, who sacrifice "for the health of the children" (ὑπὲρ τῆς ὑγίας τῶν παίδων).[101] Lastly, I note the important sacrificial calendar of Mykonos,[102] where the *glossa* is given to the priest of Poseidon Temenites (line 8), and also to the *hiereus* of Apollo Hekatombios. This last case offers interesting details, although not very clear. It is prescribed that a bull and ten lambs must be sacrificed to the god (line 30: ταῦρος καὶ δέκα ἄρνες). Now, from the bull, the tongue is given to the priest (lines 31–32: τῶι ἱερεῖ τοῦ ταύρου δίδοται γλῶσ|σα), but the tongue of the lambs which the boys (παῖδες) and the bridegrooms (νυμφίοι) sacrifice, poses a problem of understanding. The lines in question run as follows (32–34): τῶν ἀρ[ν]ῶν ὧν οἱ παῖδες θύουσιν, ἱερεῖ γλῶ[σ]|σα καὶ τῶι παιδὶ γλῶσσα ἑκατέρωι· ὧν οἱ νυμφίοι θύ[ου]σιν, | τῶν ἀρ[ν]ῶν τῶι ἱερεῖ καὶ τῶι νυμφίωι γλῶσσα ἑκατέρωι. Edward Kadletz translates this text in that manner: "from the sheep which the youths sacrifice, a tongue to the priest and a tongue to each youth; from the sheep which the bridegrooms sacrifice, a tongue to the priest and a tongue to each bridegroom".[103] Carbon, in his meticulous edition of the inscription, proposes the following translation: "from the lambs which the boys sacrifice, a tongue is given alternately to the priest or to a boy; from the lambs which the bridegrooms sacrifice, a tongue is given alternately to the priest or to a bride-groom". I wonder if we could not understand this passage in another way. Firstly, the adjective ἑκάτερος means normally "each of the *two*", it presupposes two parties.[104] Thus, it could not signify "to each youth" (or bridegroom), as Kadletz writes. Secondly, I am not sure that it implies the notion of alternation, a sense that, if I am not mistaken, it is not supported by philological sources. I would say then, that a tongue is given "to each" (of the two), that is to the priest and to the boy, and the same distribution would be repeated in the case of the priest and the bridegroom. If this is so, we could suppose that one boy and one bridegroom act as responsible of their group, and by virtue of this function, they may receive a *geras*.[105] Anyway, this inscription raises many questions impossible to examine here, such as, for example, the character of the two groups of young people who offer the sacrifice of the lambs,[106] the nature of this Apollo Hekatombios, or the fact that the tongue can sometimes be granted to other persons than the priest/priestess, as we saw before in the case of the *hierophant* in Ephesos.[107]

Before closing this inevitably incomplete discussion about tongues as priestly perquisites, I would like to make an obser-

[96] Chios: *CGRN* 38 (*supra*, with *note 24*); Iasos: *CGRN* 196 (*supra*, with *note 82*). We can add here another fragmentary inscription found also at Chios, where, according to a new reading of Carbon, the tongue ([γλῶσ]σα) seems to be part of the perquisites due to the priestess (ἱερέαι): *LSCG* 120; *CGRN* 88 (*c.* 350–300 BC), lines 1–3.

[97] *LSAM* 48; *CGRN* 138 (275/274 BC), lines 15–17: ἐὰν δέ τις θύειν βούλ[ηται] | [τῶ]ι Διονύ[σω]ι γυνή, διδότω γέρη τῆι ἱερείαι … | … γλῶσσαν.

[98] Priene: *LSAM* 37; *CGRN* 176 (2nd century BC), lines 8–9: λήψεται δὲ ὧν | πόλις θύει σκέλος γλῶσσαν δέρμα … Sinope: *LSAM* 1; *CGRN* 120 (*c.* 350–250 BC), lines 5–7: καὶ λήψ[εται τῶν ἱερείων τῶν] | δημοσίαι θυομένων … | γλῶσσαν· τῶν δὲ [ἰδιωτικῶν … On Dionysos Φλέος (or Φλεῖος), cf. Graf 1985, 283–284.

[99] *LSAM* 40; *CGRN* 122 (*c.* 350–250 BC), line 4: λαμβάνων γλῶσσαν.

[100] *LSS* 77; *CGRN* 49 (*c.* 400–375 BC), line 7: καὶ γλῶ[σ]σαν (on the hypothetical association with Hermes, cf. the commentary). See Plassart & Picard 1913, 194–202. On ἑρμέας: Hesychius, *s.v.* Ἑρμῆς· καὶ πέμματος εἶδος κηρυκ(ει)οειδές; but see also the variant ἑρμητής: *CGRN* 76 (Erythrai, cult of Asklepios and Apollo, *c.* 380–360 BC), lines 12–13 and 22 (see infra, n. 104).

[101] *LSAM* 52 B, lines 3–8 (early 2nd century AD, according to Lupu, *NGSL*, 51; cf. 248, n. 34, on the term of ἐντεμένιοι).

[102] *LSCG* 96; *CGRN* 156 (*c.* 230–200 BC): revised edition, with translation and a detailed commentary by Carbon.

[103] Kadletz 1981, 27. I remark here for the moment that the sacrificial animals in this passage are not "sheep", as translates Kadletz, but "lambs", ἄρνες in Greek.

[104] See *DELG*, *s.v.* ἕκαστος. Cf. *CGRN* 76 (*supra*, *note 100*), lines 22–23: … καὶ ἑρμητὴν π[αρατι]|θέτω τῶι θεῶι ἑκατέρωι ("... and a Hermes-cake for each of the two gods").

[105] As is also casually suggested by Sokolowski (*LSCG* 96, p. 187), without further remarks.

[106] I do not think that we have to do here with "*couples de jeunes mariés*", as Jaillard 2007, 159 n. 130, translates (cf. the commentary of Carbon in *CGRN* 156, lines 29–39).

[107] See *supra*, with *note 31*. On the sacrificial regulations of Mykonos, cf. the commentary of Carbon (*CGRN* 156) and the bibliography referring to different aspects of this inscription.

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vation, but without being able to find a satisfactory explanation of the facts. We have mentioned, at the beginning of this paper, the recurrent expression about the *splanchna* placed "in the hands and the knees" [of the divine statue], as offerings to the divinity, which could be recovered afterwards by the cult agents. As it is often remarked, this expression characterizes a certain number of sacrificial regulations from Chios. Without trying to be exhaustive on the subject, I will enumerate seven Chian inscriptions referring to this matter, which I have more or less examined throughout this paper: *CGRN* 36, 41, 49, 50, 66, 88 and 170.[108] Of these seven, nos. 36, 49 and 88 (and very probably no. 66, very fragmentary) cite this standard expression, mentioning both the hands and the knees, for example no. 49: σπλάγχνα τὰ ἐς [χ]ειῖρας καὶ | γούνατα (lines 6–7). On the contrary, nos. 41 and 50 curtail this phrase, so to speak, mentioning only the hands, while no. 170 refers only to the knees.[109] Why these differences? If we follow Folkert van Straten, they were probably due to the form of the divine statue: the *splanchna* placed on the knees "require a seated cult image", while they can be placed conveniently "into the hands", when they are put into the bowl (φιάλη) which many statues of gods or goddesses held in their "outstretched right hand".[110] What interests me in this context is a perceptible relation between this kind of sacrificial prescriptions and the *tongue*. Except the extremely fragmentary no. 66, which does not allow us to verify the presence or not of the word γλῶσσα, in all the other six inscriptions, the tongue or tongues are always present, constituting with the *splanchna*, and eventually with other portions, the perquisites owed to the priest or, in an exceptional case (no. 88), to the priestess.[111] Does this "proximity" between σπλάγχνα and γλῶσσα in Chios have a particular meaning? It may have to do with the inclusion of the tongue as part of the set of σπλάγχνα in other, later sources.[112] But I am not sure that we can find a definitive answer to this question. Perhaps we are condemned to accept our ignorance in the face of such local associations between different parts of the animal body, with regard to the priestly prerogatives.

It remains to be seen very briefly whether the tongue constitutes a pleasant offering for the gods, or likewise for heroes,[113] such as, for example, the Archegetes who seems to be the eponymous hero of an Attic tribe, or of a trittys (a third of a tribe), though the reading is not very sure.[114] It is well known how the Homeric gods, in the *Odyssey*, take delight in the tongues thrown upon the fire (see *infra*). However, before trying to explore some literary sources, in order to perceive and to grasp the meaning, or at least certain aspects, of this kind of offering, I would like to note that the practice of placing the tongue of a sacrificial animal "on the altar", though very rare, is not absent from the epigraphic evidence. We have seen the fragmentary inscription from Erythrai, where, among the portions placed ἐπὶ τὸμ βωμ[ὸν …], the tongue (καὶ γλ[ῶσσαν …]) is mentioned before the snout and the head.[115] In any event, there is also another manner to dedicate the *glossa*—and other parts of the animal—to the gods: by depositing it on the *trapeza*,[116] even if afterwards it could be taken away by the servants of the divinity. This is the case at Minoa on Amorgos, where, according to a decree concerning the cult of Meter, the officials called *epimenioi* have the obligation to place aside, "on the table for the goddess" (τῆι θεῶι ἐπὶ τὴν τράπεζαν), different portions of the sacrificial animals including the tongue (γλῶσσαν); a part of these offerings explicitly belongs to the priestess (… μέ]ρος τῆς ἱερείας).[117] I would like to note here that even if afterwards the *trapezomata* are recovered by the officiating agents, this practice must not diminish the importance of the dedicatory act, the fact that the principle aim, the main intention of the worshippers was to honor the divinity: gods came first.

Now, a rapid view of the literary sources show that, from its earliest mention in *Odyssey*, the tongue would not be considered a neglected part of the sacrificial animal, far from it.[118] Athena herself, with the voice of Mentor, recommends old Nestor to "cut out the tongues (τάμνετε … γλώσσας)" and to "mix the wine" in order "to pour a libation to Poseidon and

[108] I follow the publication of these inscriptions in *CGRN*, having in mind that this expression is sometimes reconstituted.
[109] Hands: cf. *CGRN* 50 (σπλάγ|χνα τὰ εἰς χεῖρας, lines 3–4). Knees: *CGRN* 170 (σπλ|άγχνα τὰ ἐς γόν|ατα, lines 5–7).
[110] van Straten 1995, 132–133.
[111] Concerning this case, see *supra*, *note 96*.
[112] On this subject, see Pirenne-Delforge's paper in this volume, *Chapter 10*.
[113] This question certainly deserves a more substantial development, in another context.

[114] *LSCG* 11; *CGRN* 26 (*c.* 423/422–404/403 BC), B lines 7–9: παρε|[χε..?.. γλῶτ]ταν δὲ τ�ôι Ἀρχεγέτε|[ι..?.].
[115] See *supra*, with *note 61*. About the sacrificial portions ("half of head, a tongue, a brain") liable to be burned on the altar at Ialysos, see *supra*, with *note 83*.
[116] We have to do here with the well known *trapezomata* (cf. Gill 1991, esp. 11–23), a term mentioned for example in a decree concerning the priesthood of Asklepios at Pergamon. The person "who holds the priesthood in turn ... will take as parts of honor (γέρα) from all the animals sacrificed in the sanctuary the right leg and the skins (σκέλος δεξιὸν καὶ τὰ δέρματα) and all the other offerings set on the table (καὶ τἄλλα | τραπεζώματα πάντα τὰ παρατιθέμεν[α])": *LSAM* 13; *CGRN* 206 (2nd century BC), lines 12–15. Cf. Edelstein & Edelstein 1945, I, 280–282, no. 491.
[117] *LSCG* 103; *CGRN* 195 (1st century BC), fragment B2, lines 15–20. Cf. Kadletz 1981, 27–28. On the *epimenioi*, see more recently Carbon & Pirenne-Delforge 2013, 83–95.
[118] Philochorus, the most famous of the Atthidographers, considered, in *On sacrifices* (Περὶ θυσιῶν), that the tongue "is the best and the first [organ] of the body" (τὸ κάλλιστον τοῦ σώματος καὶ πρωτεῦόν ἐστι): *FGrHist* 328, F 80 (Jacoby), *apud* schol. Ap. Rhod. Vetera 516–518c (Wendel).

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the other immortals" (ὄφρα Ποσειδάωνι καὶ ἄλλοισ' ἀθανάτοισι σπείσαντες): we are on the seashore of Pylos, where Nestor and his people are preparing to sacrifice "all-black bulls" (ταύρους παμμέλανας) in honor of the "Earth-shaker [Poseidon], the dark-haired" (Ἐνοσίχθονι κυανοχαίτῃ). Hearkening to her voice, "they cast the tongues upon the fire (γλώσσας δ' ἐν πυρὶ βάλλον) and, rising up, poured the libation upon them".[119]

It is true that the scholia on this Homeric passage do not mention Poseidon, but Hermes, making first a general statement: "it was a custom for those turning themselves to sleep, to cut off the tongues of the sacrificial animals and to burn them for the gods who take care of speech." Therefore, they sacrificed the tongues dedicating them to Hermes as the "overseer", the "dispenser of speech".[120] Discussing these scholia in relation with other sources referring to tongues or to Hermes, Kadletz, more or less following Paul Stengel and adopting an evolutionistic view, establishes a distinction between "heroic times", when the tongue would be burned "as a final gift to the gods", and "the Classical period", when "tongues were used solely as the prerogative of the priest." And he concludes: "There is no evidence that tongues were ever offered especially to Hermes or to heralds."[121] We cannot go through this rather "stiff" discussion here, which all too rapidly purges any relation between Hermes, the heralds and tongues, and this, despite the testimony of certain sources and scholia that we have no valuable reasons to reject.[122]

As a matter of fact, if the sacrifice accomplished by Nestor and his people at Pylos suggests that the tongues can be an acceptable offering for any god, it is true that later sources associate the γλῶσσαι particularly with Hermes or the κήρυκες: with Hermes, as messenger of the gods, as a divine herald, acting as mediator of the language, as the god who "traditionally is speech" (Ἑρμῆς λόγος εἶναι παραδέδοται);[123] with heralds, as messengers of humans, masters of the spoken word, who hold as their patron Hermes, and employ his tool, the κηρύκειον, the herald's wand.[124] In order to defend his thesis, Kadletz remarks that the scholiast on Apollonius Rhodius' *Argonautica* (1.516–518b) refers to Hermes, as recipient of tongues, whereas Apollonius himself mentions, in these verses, Zeus: the evening before their expedition to Colchis, Jason and the Argonauts, after having enjoyed a rich banquet with vast stores of food and sweet wine and before going to sleep, "mixed libations in honor of Zeus as is customary ... and poured them upon the burning tongues".[125] In consequence, this divergence between the author and his scholiast would invalidate the reference to Hermes in the scholia. Nevertheless, it must be noticed that the mention of Zeus is a natural conclusion of the cosmogonic hymn sung by Orpheus, just before the libations, in honour of the child Zeus and his renown (κῦδος).[126] Anyway, this presence of Zeus would not prevent the scholiast of the *Argonautica* from referring to a probably well-known tradition associating Hermes with the tongue: Hermes, he says, "is speech" and "the organ of speech is the tongue" (ὄργανον δὲ αὐτοῦ ἡ γλῶσσα), which is at rest when sleep falls (upon us); thus, "it is reasonable that they sacrifice it [sc. the tongue] to Hermes".[127] Moreover, it is not perhaps by accident that Athenaeus, commenting the uses and habits of the Homeric heroes, puts forward Hermes, when he

[119] Hom. *Od.* 3.5–6 and 3.331–341. As the "only" other example of this practice ("placing the tongue on the altar"), Kadletz (1981, 28) cites a Megarian myth transmitted by the Megarian historian Dieuchidas, *FGrHist* 485, F 10 (Jacoby), *apud* schol. Ap. Rhod. Vetera 516–518c (Wendel): Alkathous, son of Pelops, "conquers by a struggle" (καταγωνίζεται) a lion which was ravaging Megara, and brings its tongue to the king, as proof of his exploit; then the king, after sacrificing to gods, "placed the tongue last upon the altars" (ὁ βασιλεὺς τὸ τελευταῖον τὴν γλῶσσαν ἐπέθηκεν τοῖς βωμοῖς), and since then this has remained a custom for the Megarians. However, contrary to the sacrifice of Nestor, this concerns the tongue of a *wild* animal, which raises, as is known, serious sacrificial problems, even if one could suppose that, afterwards, the Megarians would burn on their altars the tongues of *domesticated* animals. For experiments with burning tongues, see Morton in this volume, *Chapter 2*.

[120] Schol. Hom. *Od.* 3.332 (Dindorf): ἔθος ἦν τρεπομένοις πρὸς τὸ καθεύδειν τῶν ἱερείων τὰς γλώσσας ἀποτέμνειν καὶ καίειν τοῖς θεοῖς τοῖς λόγου ἐπιμελομένοις ... τὰς γλώσσας γὰρ τῷ Ἑρμῇ ἀνετίθουν ὡς ἐφόρῳ τοῦ λόγου ... ὡς λόγου δοτῆρι.

[121] Kadletz 1981 (citations, p. 29); cf. Stengel 1910, 172–177, on which see the pertinent critical note of Berthiaume 1982, 52, 113 n. 73.

[122] As remarks also rightly Jaillard 2007, 158–159 with n. 130.

[123] Schol. Ap. Rhod. Vetera 516–518b (Wendel), to which we will return. According to Cornutus (*Theol. Graec.* 16.2), Hermes is called διάκτορος (messenger), because he carries over our thoughts (νοήματα) to the souls of people who are close (εἰς τὰς τῶν πλησίον ψυχάς): "wherefore, they consecrate to him the tongues" (καθὸ καὶ τὰς γλώττας αὐτῷ καθιεροῦσιν); cf. Nesselrath 2009.

[124] Hermes: Ar. *Plut.* 1110: ἡ γλῶσσα τῷ κήρυκι τούτων τέμνεται ("the tongue is cut out for the herald [sc. Hermes] of these things". The fact that certain scholars, such as Kadletz, prefer the reading γί[γ]νεται, according to a manuscript, instead of τέμνεται, does not abolish the obvious relation between Hermes and the tongues, which is also confirmed by the scholia to Ar. *Plut.* 1110 (Dübner): ἡ γλῶσσα τῶν θυομένων τῷ Ἑρμῇ δίδοται, ἐπειδὴ τῶν λόγων δεσπότης ἐστίν ("the tongues of the sacrificial animals are given to Hermes, because he is master of speech"). The same scholia quote the Alexandrian scholar Kallistratos who "says that the tongues of sacrificial animals are assigned to heralds" (τῶν θυομένων φησὶ τὰς γλώσσας τοῖς κήρυξιν ἀπονέμεσθαι); for this reason, continue the scholia, the tongue "is given to you [sc. Hermes] who are herald and servant of the gods" (ἀποδίδοται γὰρ σοὶ τῷ ὄντι κήρυκι τῶν θεῶν καὶ ὑπηρέτῃ).

[125] Ap. Rhod. *Argon.* 1.516–518: κερασσάμενοι Διὶ λοιβάς, ἣ θέμις ... ἐπὶ γλώσσησι χέοντο αἰθομέναις.

[126] This κῦδος would be bestowed on the god thanks to the arms given to him by the "earth-born Cyclopes", that is "the bolt, with thunder and lightning" (*Argon.* 1.494–511).

[127] Schol. Ap. Rhod. Vetera 516–518b (Wendel): εἰκότως τῷ Ἑρμῇ αὐτὴν θύουσιν. On the polyvalent association of Hermes with the tongue, speech, silence or sleep, see Buffière 1956, 294–296.

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says that, at the end of the dinners, they poured libations to Hermes, "not, as in later times to Zeus Teleios": for Hermes is regarded as "patron of sleep" (ὕπνου προστάτης); but "they pour libations also to him, over the tongues, on leaving the dinners", for "the tongues are assigned to him, because of the interpretation" (προσνέμονται δ' αὐτῷ αἱ γλῶσσαι διὰ τὴν ἑρμηνείαν).[128]

However, closing this brief review of the relation between Hermes and the tongue, we must note that this relation is not verified, for the moment, in the religious regulations, at least as far as a search in the instructive *CGRN* can show.[129] Nevertheless, this kind of gap between literary texts and epigraphic documents is not rare, a fact that incites us to always take into consideration both types of sources, in order to avoid hasty generalizations.

At the end of this excursus through the meanders of the *kephale*, I am aware of the fact that what I have presented is sometimes limited to the description of different cult variants concerning the distribution of the head and its parts to human agents or divine powers. I am not sure that we can *always* find a sound explanation and give a sense to this kind of attribution, since the regulations often seem to depend on local usages or represent variations from different historical periods. However, in the continuation of this research, it remains worth trying to get to a deeper investigation and analysis of these ritual facts.

STELLA GEORGOUDI
École pratique des hautes etudes, sciences religieuses,
Unité de recherche ANHIMA, Paris
stella.georgoudi@ehess.fr

[128] Ath. 1.16b–c. Hermes is considered as the god of interpretation. The word ἑρμηνεία takes, in this passage, the sense of "expression, style" (cf. *DELG*, *s.v.* ἑρμηνεύς), of skilful and eloquent speech. I note that Athenaeus refers here to Homer, not to the *Argonautica* of Apollonius, as Kadletz 1981, 23, writes.

[129] As Carbon suggests to me, if *CGRN* 49 (Contract of the sale of a priesthood on Chios) belongs to the cult of Hermes (see *supra*, with *note 100*), the tongue given to the priest (line 7) could be expected by the god. However, he agrees also that this is far from sure. In fact, the mention of "Hermes-cakes" (line 9: ἑρμέας), received also by the priest, does not guarantee that the god was Hermes, because this kind of cake could be found in other cults, such as that of Asklepios and Apollo at Erythrai, where a Hermes-cake is set aside for each of the two gods (see *supra*, *notes 100* and *104*). My warmest thanks to Jan-Mathieu Carbon for his careful reading and suggestions.

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BARTEK BEDNAREK

9. Μέχρι σπλάγχνων

When is that?

Abstract

The following paper discusses the role of σπλάγχνα (*splanchna*—the victim's entrails) within standard sacrificial procedures in ancient Greece. As literary and iconographic sources indicate, from Homer until Late Antiquity these internal organs were perceived as distinct from ἔντερα (intestines) and κρέας or σάρξ (meat). As such, they received special ritual treatment, being roasted over the fire in which the gods' share was burned. Consumption of at least a symbolic quantity of victim's entrails was an indispensable sign of the worshippers' participation in the ritual. As I argue, in spite of its social and economic importance, meat usually did not convey similar religious meanings as σπλάγχνα.*

Keywords: Greek animal sacrifice, Greek literature, Greek inscriptions/epigraphy, entrails (*splanchna*), intestines, meat, roasting, altar, participation, honorary share, 2 *Maccabees*, neo-Pythagoreans, oath-sacrifice

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Why σπλάγχνα?

The title of this paper has been inspired by an expression used in the famous sacrificial calendar from the Attic deme Erchia: Διὶ Μιλιχίωι, οἷς, νηφάλιος μέχρι σπλάγχνων, "for Zeus Meilichios, a male sheep, no pouring of wine until entrails."[1] Although this expression is attested only once in the epigraphical sources and is absent from the literary texts, it seems clear that its meaning was supposed to be self-evident for ancient readers of the inscription. Therefore, it seems likely that it was a fixed formula. Even if it was not, it indicates a special position of the σπλάγχνα within the sacrificial process, seeing that this noun, which primarily refers to animal (or human) entrails, was used here metonymically as an indicator of time. Perhaps in this respect μέχρι σπλάγχνων may be compared to the modern "before/after the pudding" which indicates an easily recognisable moment within a standard sequence of actions. It presupposes that there might have been little doubt as to when the time for σπλάγχνα would come and what was to be done with them.[2] In case of the specific sacrifice in honour of Zeus Meilichios mentioned in the Erchian calendar, it also played a role as an indicator of a shift between two modalities of the ritual performance. It seems that until σπλάγχνα the deity was to be treated as one of the dangerous powers that needed to be placated, whereas after the σπλάγχνα, he was clearly seen as a propitious being. This means that the rite of σπλάγχνα concluded the first part of this highly anomalous ritual sequence, somehow confirming its successful outcome.[3]

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[1] *CGRN* 42; *LSCG* 18, A lines 40–43; first published by Daux 1963. For the bibliography, see *CGRN*, *ad loc*. and below, *note 2*.

[2] Unlike ancient readers of the inscription, contemporary scholars struggle to make sense of this laconic statement. See especially Scullion 1994, 79–80; Henrichs 1983, 91, n. 19; Jameson 1965, 164; Daux 1963, 629.

[3] This could explain the ambiguous picture of Diasia, the festival during which the sacrifice under discussion took place. According to some sources (esp. Ar. *Nub.* 408–411 and 864), it was a cheerful feast, but according to others, it was celebrated *with a certain grimness* (schol. Luc. 24.24 and 25.7; Hesychius, s.v. Διάσια). Rather than representing the confusion of our informers, such ambiguity can result from the fact that the festival was marked by the passage from anxiety to joy, when a (potentially) hostile divinity was appeased. For a brief discussion of an-

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The question of what τὰ σπλάγχνα, in the most concrete sense of the word, are, does not seem to be very difficult to answer.[4] Aristotle in the *Parts of animals* gives what is usually taken as a canonical list: heart, lungs, liver, spleen, and kidneys.[5] He also explains that they are formed of a blood-like substance.[6] As Guy Berthiaume observed,[7] within sacrificial practice, these internal organs were markedly different not only from meat, but also from what was collectively called τὰ ἔντερα,[8] various parts of the digestive system such as intestines and stomach(s). This is clear from a passage in Aeschylus' *Agamemnon* and from sacrificial regulations from Kos, where the two terms are juxtaposed.[9]

Although this latter category of internal organs (ἔντερα) is much less conspicuous in descriptions, prescriptions and depictions of sacrificial practice, it is not completely absent from our dossier. For example, Aristophanes mentions the task of washing animals' intestines on two occasions, apparently as a part of their preparation for use as sausage skins.[10] In both cases it is apparent that this was understood as a menial and unpleasant job, suitable for those who occupied the lowest ranks within the social hierarchy.

It seems very likely that washing intestines is also represented on the Ricci Hydria in the Museo Nationale Etrusco di Villa Giulia in Rome, on which two young men are shown with their arms submerged in a large basin. This scene has been interpreted by Goffredo Ricci and some other scholars who followed him as that of ritual ablution in a λουτήριον after a sacrifice.[11] This reading has been questioned by Folkert van Straten,[12] who observed that it would make much more sense if the scene, inserted between that of boiling meat in a cauldron and that of displaying meat on a table (or cleaning a table and taking leftovers for storage), also represented some aspect of food processing. If it had shown an ablution, it would curiously break the continuum. Moreover, as van Straten stated, if the scene had a purely ritual meaning, it would have been more natural to represent an officiant washing his hands rather than the ablution performed by his attendants. As a consequence, he suggested that the depiction under discussion may represent kneading dough for sacrificial cakes. However plausible that is,[13] this interpretation leaves open the question of the sequence of ritual or ritualised actions. If the narrative on the vase develops from left to right, as seems to be the case, then the proper place for kneading dough should be somewhere next to the altar scene and certainly before it. If, however, the picture shows the cleaning of the victim's intestines, the two objections raised by van Straten would be answered. Such a scene would clearly inscribe itself into the context of meaty food preparation (be it for immediate consumption[14] or for storage) and at the same time it would represent a task proper for persons of respectively lower status.[15]

As for the purely ritual use of ἔντερα,[16] it seems to be marginal at best, given that it is usually passed over in silence. The only exception seems to be provided by the already mentioned sacrificial calendar from Kos, in which a holocaust of a piglet is mentioned as a preliminary rite in honor of Zeus Polieus:[17]

> τοὶ δὲ κά[ρυκες κ]αρπῶντι τὸμ μὲγ χοῖ[ρ]ογ καὶ τὰ
> σπλάγχνα ἐπὶ τοῦ βωμοῦ
> ἐπισπένδοντες μελίκρατον, ἔ[ντερ]α δὲ ἐκπλύναντες
> παρὰ τὸ[μ βωμὸν κα]ρπῶντι·
> ἐπεὶ δέ κα καρπω[θῆι] ἄποτα, ἐπισπενδέτω μελίκρατον

Jan-Mathieu Carbon and Saskia Peels (in *CGRN*) offer the following translation:

> The [heralds] burn the piglet and the entrails on the altar making a libation of honey-mixture and, after having washed [the intestines] next to the [altar], they burn them. After they have been burned without liquid, let him add a libation of honey-mixture.

According to this interpretation, the holocaust of a piglet involves a similar treatment of both ἔντερα and σπλάγχνα. Nevertheless, the fact that they were burnt in two separate

cient sources and further references, see Scullion 2014, 341–342; 2007, 190–193.

[4] For some nuances, see Pirenne-Delforge in the present volume, *Chapter 10*.

[5] Arist. *Part. an.* 3.9.672b8–9: περὶ μὲν οὖν τῆς καρδίας καὶ πλεύμονος εἴρηται, καὶ περὶ ἥπατος καὶ σπληνὸς καὶ νεφρῶν.

[6] Arist. *Part. an.* 3.4.665b6: ἐξ αἱματικῆς ὕλης.

[7] Berthiaume 1982, 44–49.

[8] Many scholars before Berthiaume clearly ignored this distinction. Most notably, Puttkammer 1912, *sparsim*, refers to σπλάγχνα as *intestina*.

[9] Aesch. *Ag.* 1219–1222; *CGRN* 86 (*LSCG* 151), A lines 33–35. See also Detienne 1989, 10; Durand 1989, 100; Ekroth 2008, 261. It is also worth noting that Aristotle, having stated that cephalopods do not have σπλάγχνα (*Part. an.* 4.4–5.678) only a little further (678b) speaks of their στόμαχος, κοιλία and ἔντερον.

[10] Ar. *Eq.* 160; *Plut.* 1168–1169.

[11] Ricci 1946–1948, 49; Durand 1989, 103; Berthiaume 1982, 52.

[12] van Straten 1995, 148–150.

[13] See Gebauer 2002, 329; Mylonopoulos 2006, 78.

[14] It is interesting that in *Pax* 715–718 Aristophanes mentions three kinds of foodstuff associated with the celebration of the City Dionysia: ζωμός, χόλικες ἑφθαί, κρέα—broth or stew (cooked in cauldrons), boiled (stuffed) bowels (= sausages? black puddings?), meat. Apparently, sausages of some sort were also eaten on such occasions.

[15] On cleaning victims' entrails, see also Németh 1994, 63–64. On sausages, Frost 1999.

[16] By "purely ritual" I mean use of an object that is directly related to the communication with (a) supernatural being(s), for example by means of transmitting it by means of deposition or cremation. Thus, a case of apportioning entrails to the priestly personnel (e.g. *LSCG* 156, A lines 27–28: γέρη φέρει δέρμα καὶ σκέλος καὶ χέλυος ἥμισυ καὶ κοιλίας ἥμισυ) falls outside its scope.

[17] *CGRN* 86, A (= *IG* XII.4 278 = *LSCG* 151 A) lines 33–36.

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phases of the ritual clearly presupposes the distinction between them. The opposition between the two kinds of organs seems even more clearly articulated according to the more traditional interpretation of the inscription, in which the words παρὰ τὸμ βωμὸν are construed with καρπῶντι, rather than ἐκπλύναντες. This results in the meaning: "The [heralds] burn the piglet and the entrails on the altar making a libation of honey-mixture and, having washed [the intestines], they burn them next to [the altar]." If this were so, burning of intestines did not necessarily take place in a different moment from σπλάγχνα. Instead, they were burnt in a different location, which may be suggestive of their lower value or even that they had to be kept away from the altar due to their having some degree of impurity.[18]

As for σπλάγχνα or viscera proper, their paramount importance can hardly be denied, especially within the unmarked *thysia*. It was already observed by Paul Stengel that Homer pays special attention to two rites within the sacrificial process.[19] The formulaic verse αὐτὰρ ἐπεὶ κατὰ μῆρα κάη καὶ σπλάγχνα πάσαντο, "when the thigh-bones were wholly burned, and they had tasted of the inner parts",[20] clearly indicates that in the world of the epics the very core of the animal sacrifice may be conceptualised as an act of burning the thigh-bones for gods and sharing some of the entrails between human participants in the ritual. Stengel goes on to suggest that the σπλάγχνα were roasted on the same fire on which the thigh-bones burned. His intuition is very well confirmed by later iconographic sources depicting the act of roasting entrails over the fire blazing on an altar on which the gods' share, usually an ὀσφῦς, is burning.[21] Stengel also emphasised the opposition between σπλάγχνα and σάρξ/κρέ' ὑπέρτερα[22] (meat/outer flesh), which clearly did not convey the same religious meaning.

That latter category was playfully called *taratalla* by van Straten,[23] using the Homeric formula describing what happened after the consumption of the σπλάγχνα: μίστυλλόν τ' ἄρα τἆλλα καὶ ἀμφ' ὀβελοῖσιν ἔπειραν, "they cut up the rest and pierced it through with spits."[24] Thus, the edible part of an animal can be divided into following categories: μῆρα/μηρία + σπλάγχνα + τ' ἄρα τἆλλα. The first two are of paramount ritual importance, whereas the third consists of everything that is left, the unmarked *rest*, and probably comprises meat as well as ἔντερα.

The fact that it is not all about the words, as Jean Rudhardt observed,[25] is very well illustrated by a passage in the *Odyssey* in which Telemachus arrives at Pylos, where the local community is offering a hecatomb to Poseidon. The way in which the poet organises the course of events is quite meaningful. The ship reaches the shore exactly when the burning of thigh-bones and sharing entrails is over (3.9–11):

> εὖθ' οἱ σπλάγχνα πάσαντο, θεῷ δ' ἐπὶ μηρί' ἔκηαν,
> οἱ δ' ἰθὺς κατάγοντο ἰδ' ἱστία νηὸς ἐΐσης
> στεῖλαν ἀείραντες …
>
> "Now when they [men of Pylos] had tasted the entrails
> and burnt the thigh-bones,
> the others [Telemachus and his crew] put straight to
> shore, and hauled up and
> furled the sail of the shapely ship ..."

Subsequently the poet says that the men of Pylos were making preparations for the feast of meat (33: δαῖτ' ἐντυνόμενοι κρέα τ' ὤπτων ἄλλα τ' ἔπειρον: "making ready the feast, they were roasting some of the meat and piercing other pieces [with spits]"), when they suddenly spotted the group of strangers approaching them. Peisistratos (one of Nestor's sons) invited the newcomers to join the sacrificial circle and, crucially in this context, he offered them portions of entrails along with some wine (40–41: δῶκε δ' ἄρα σπλάγχνων μοίρας, ἐν δ' οἶνον ἔχευεν/χρυσείῳ δέπαϊ: "he gave them portions of the entrails and poured wine in a golden cup"). Athena-Mentor and Telemachus duly poured out libations and prayed to Poseidon to accept and reciprocate the hecatomb offered by the people of Pylos, adding their own intentions. Only then could feasting on the meat begin (65–66: οἱδ' ἐπεὶ ὤπτησαν κρέ' ὑπέρτερα καὶ ἐρύσαντο,/ μοίρας δασσάμενοι δαίνυντ' ἐρικυδέα δαῖτα: "then when they had roasted the outer flesh and

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[18] The interpretation preferred by Carbon and Peels has been proposed by Scullion (2009, 158; thus also Paul 2013, 37). Both versions give justice to the Greek text and both seem to make sense. What speaks in favour of the traditional reading (preferred among others by Hallof in *IG* XII.4 278 A, lines 33–36; Jameson 1965, 165), although it is far from decisive, is that it may presuppose a distinction between objects burnt on the altar and next to it, as mentioned by Eustathius (*ad Od.* 12.252). With some likelihood, a separate pyre is referred to in lines 37–39, where some objects that are supposed to be burnt on top of the intestines (τοῖς ἐντέροις ἐπιθυέτ[ω) are listed. Given that by that time, the ἔντερα must have been already incinerated (as results from line 36), the fact that the place where the objects are to be burnt is stated in an explicit manner may suggest that it was distinct from the altar.

[19] Stengel 1910, 74–75.

[20] Translations of the passages from the *Iliad* and *Odyssey* are by Murray (Loeb edition 1924 and 1919) with changes. *Il.* 1.464, 2.427; *Od.* 3.461, 12.364 and with some changes: *Od.* 3.9.

[21] See especially van Straten 1995, 118–141; Gebauer 2002, 352–447; Rizza 1959–1960; Bremmer 2019, 318–319 with further bibliography in n. 71.

[22] Homeric formula: *Od.* 3.65, 3.470 and 20.279.

[23] van Straten 1995, 144 after Martial (1.50), who introduces this playful Homerism as the name of a chef: *Si tibi Mistyllos cocus, Aemiliane, vocatur, / dicatur quare non Taratalla mihi?*

[24] *Il.* 1.465; *Od.* 3.462, 12.365 and 14.430.

[25] Rudhardt 1958, 255.

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drawn it (off the spits), they divided the portions and feasted a glorious feast").

The series of poetic choices in this sequence seems to be hardly a matter of coincidence. For some reason the poet insists that Telemachus and his divine companion take their share in the victim's entrails, before joining in the feast on the outer flesh (κρέ' ὑπέρτερα). Moreover, it seems telling that the newcomers, when taking the σπλάγχνα, performed the two other actions that incorporated them into the group of worshippers: they poured a libation and prayed to Poseidon, the same god for whom the people of Pylos sacrificed. This seems to suggest that the sacrifice also became their own and that sharing the entrails is clearly meant to be a *signifier* of this incorporation.[26]

Having said this, it has to be observed that the centrality of the σπλάγχνα and the opposition with *taratalla* meat has received quite an awkward scholarly treatment. On the one hand, a few illustrious scholars laid enormous stress on it. Thus, thanks to Stengel, Meuli, Rudhardt, Detienne, and van Straten, it seems to have become a commonplace that σπλάγχνα were dealt with in a special way and had special meaning.[27] As with many commonplaces, it has been repeated by some other, no less brilliant scholars who often fail to recognise how meaningful the opposition between entrails and meat is. Even more surprisingly, the list of scholars who pay virtually no attention to σπλάγχνα not only is long but also comprises some great names.[28] In what follows, I would like to argue that there is quite abundant, even if not always straightforward, literary data to show that, unlike some modern scholars, Greeks themselves until Late Antiquity never ignored the distinction between σπλάγχνα and other meaty parts of sacrificial animals. Having examined the primary sources, I would like to turn attention to their scholarly reception in search for the reasons of misunderstandings surrounding σπλάγχνα.

Beyond Homer: old comedy

A suitable foothold for the discussion of the post-Homeric use of a victim's entrails is provided by comedy. To start with, two Aristophanic characters use a metonymy similar to the one found in Homer, and yet, at least at the stylistic level, they do it completely independently from Homer. In *Wasps*, Bdelykleon (653–654) threatens his son by saying: εἰ μὴ γάρ, ὅπος δουλεύω ᾽γώ, τουτὶ ταχέως με διδάξεις,/οὐκ ἔστιν ὅπως οὐχὶ τεθνήξεις, κἂν χρῇ σπλάγχνων μ᾽ ἀπέχεσθαι ("If you don't explain to me quickly in what way I'm a slave, then you will most certainly perish, even if it means that I have to keep away from the sacrificial feasts (σπλάγχνα)").[29] We know from other sources that murderers were required "to keep away from the things laid down by law", according to an expression (εἴργεσθαι τῶν νομίμων)—probably an official formula—recorded in the *Athenaion Politeia* (57.2) and Antiphon (6.36). Although we do not know the precise list of τὰ νόμιμα, according to Douglas MacDowell it comprised "all temples and public religious ceremonies, the Agora, and lawcourts, and presumably public meetings of all kinds."[30] When Bdelykleon says that the murder of his son will deprive him of σπλάγχνα, he clearly makes a choice. The entrails of a sacrificial animal stand here for all sorts of religious and possibly public activities.[31] This choice may be said to be quite typical for a comic hero, whose concerns revolve around hedonistic aspects of life. This may explain why he mentions σπλάγχνα and not one of the less appealing aspects of cult, such as building temples, for example. Yet, it seems hardly a coincidence that in this very brief allusion to religious matters, which was meant to be understood by ordinary people in the theatre, Aristophanes makes σπλάγχνα and not meat or ζωμός (stew), for instance, a *pars pro toto* signifier of all ritual activity.

Very similar to the previously quoted passage is another from Aristophanes' *Knights* (409–410) in which Paphlagon exclaims: οὗτοι μ᾽ ὑπερβαλεῖσθ᾽ ἀναιδείᾳ μὰ τὸν Ποσειδῶ·/ἢ μήποτ᾽ ἀγοραίου Διὸς σπλάγχνοισι παραγενοίμην ("You shan't surpass me in shamelessness, no, by Poseidon; else may I never attend to share the sacrificial meats[32] of Zeus of the Public Meetings"). In spite of some interpretative

[26] On the role of σπλάγχνα in this passage, see also Detienne 1979a, 76–77.

[27] Stengel 1910, 75–77; Meuli 1946, 268–274; Rudhardt 1958, 255; Detinne 1979a, 74–77; van Straten 2005, 24–26. For the special treatment of σπλάγχνα as a distinctive feature of Greek sacrificial practice, as opposed to non-Greek traditions, see Pirenne-Delforge in the present volume, *Chapter 10*.

[28] For example, in Burkert's *Homo Necans* there are only three sentences in which σπλάγχνα are mentioned, of which only one (1983, 6) refers to their role in θυσία sacrifice. Seaford, for whom *sacrificial feast* happens to be one of the key concepts, in his *Reciprocity and ritual* (1994) does not mention the division of entrails even once. Naiden (2013, 115) in one of few passages in which he mentions σπλάγχνα, equates them with *choice cuts of meat*. Otherwise he speaks only about their role in extispicy.

[29] Translation by Sommerstein 1983. It seems quite telling that the specificity of the term σπλάγχνα has been lost in many translations (in all I consulted, as a matter of fact). Thus, Meineck (1998) has *sacrificial feasts*; Daele (1938) *partage de viandes*; Lenz (2014) *Opferfleisch*.

[30] MacDowell 1978, 111. See also Petrovic & Petrovic 2016, 158–160; Parker 1983, 104–143.

[31] See MacDowell 1971, *ad loc.*; Biles & Olson 2015, *ad loc.*

[32] Translation by Sommerstein 1981. Again, it seems telling that the term σπλάγχνα is translated in a very loose manner. For example Daele (1934) renders it as *tripe* (which falls close to Puttkammer's *intestina*) and Henderson (1998) *share in the feast*.

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difficulties,[33] the sense of the statement seems clear: what the speaker means is that he may lose his position as a democratic leader or an active politician. Within the passage what symbolises his role is an access to σπλάγχνα of animals killed at the altar of Zeus Agoraios. Such an altar was located just behind the orator's platform on the Pnyx.[34] Although we know no details of actual ritual activities that took place there, the topography and the very name of Zeus Agoraios indicate that his cult must have been directly connected to public speaking and therefore, to the very essence of political life.[35] Once again the poet chooses σπλάγχνα as a *pars pro toto* of a sacrificial ritual which metonymically stands for something even more complex.

Quite surprisingly, also in Aristophanes' *Peace* (922–1126), in the most complex and fullest representation of animal sacrifice in ancient literature, the whole sequence ends exactly where it does in Homer. Having had an animal killed and butchered by a servant inside his house, Trygaios prepares a fire on an altar. Then, he puts μῆρα and an ὀσφῦς on it. The servant roasts σπλάγχνα. The text also mentions θυλήματα, sacrificial cakes of some sort, and the animal's tongue. No meat is referred to and quite clearly there was no place for it in the performance. As usually happens in comedy, the ritual is disturbed by Hierokles, a parasitic figure of a religious specialist, who under pretence of rendering some services tries to extort some of the entrails. Pretending not to see him, Trygaios and his servant prepare the σπλάγχνα, pour out the libation, sip some of the wine, then they try the entrails and offer some of it to the spectators. The episode ends with some slapstick aggression against the intruder, who is chased away. This permits the chorus to be left alone on stage for a few minutes, and to sing a 64-line-long ode (1127–1190). When it is finished, Trygaios re-enters, giving to his servant instructions to clean the tables after a dinner, during which, we learn from his words, he entertained numerous guests. This obviously means that the dinner party took place after Trygaios left the stage and while the chorus were singing. Thus, the post-kill phase of the ritual is clearly articulated into two subsequent sequences that may be perfectly summarized by the Homeric formulae: αὐτὰρ ἐπεὶ κατὰ μῆρα κάη καὶ σπλάγχνα πάσαντο and μίστυλλόν τ› ἄρα τἆλλα ("when the thigh-bones were burned, and they had tasted of the inner parts" and "they cut up the rest"). What seems worth emphasising is the fact that only the former took place by the altar, whereas the *taratalla* party, the dinner, was held inside the house. Similar division is reflected in various ways by the design of Greek sanctuaries, where sacrificial space is often architecturally separated from dining areas. Moreover, archaeological data show that, more often than not, debris from altars is found in different contexts from the bones left by diners.[36] This clearly indicates the practice of separating two ritual sequences one from another.[37]

Curiously enough, even though it might have become a commonplace that sacrifice in Aristophanes is all about eating, upon closer inspection it turns out that the poet never speaks of meat consumption at sacrifice. There are a few passages that fall close to it but are still far enough to be taken as evidence of the opposite. The meat mentioned in them comes from sacrifice, but it is not eaten at any point of ritual. For example in *Thesmophoriazousae* (558–559) we hear of women who bribe their procuresses with meat from the sacrifice at Apatouria.[38]

[33] On the sense of the passage, see Sommerstein 1981, *ad loc*. and Merry 1895, *ad loc*. That latter scholar equates the ritual referred to in the present context with purificatory rites or περίστια mentioned in *Eccl.* 128. This interpretation does not seem plausible, as purification would probably exclude consumption of the victim's entrails (see Parker 1983, 21).

[34] According to scholia to Aristophanes' *Knights* (409), Zeus Agoraios was worshipped on the Agora and in the place of assemblies (Ἀγοραῖος Ζεὺς ἵδρυται ἐν τῇι ἀγορᾶι καὶ ἐν τῇι ἐκκλησίαι). This piece of information has been tentatively explained by Thompson (1952, 92–93), who suggested that the scholiast might have ignored a temporal gap between the presence of Zeus Agoraios in these two different locations. Accordingly, he turned attention to a monumental altar found on the Athenian Agora (Stillwell 1933, 140–148; Thompson & Scranton 1943, 299–300) that bears clear signs of having been re-erected in ancient times. The dimensions of this object correspond perfectly with a rock-cut bedding on the Pnyx, which suggests that this was its original setting. The architectural design of the altar indicates that the rites performed on top of it were meant to be in view of the assembly. The stylistic data indicate that the object was first erected as part of Lycurgus' program of rearrangement of the Pnyx (338–326 BC). Subsequently, the altar was moved to the Agora in Roman times, when the former assembly place had lost its previous function. This obviously means that the stonework of the altar is roughly a century later than Aristophanes' *Knights*, which does not change the fact that its original location is very likely to correspond to the location of a similar object, possibly less monumental in size, that stood there in the Classical period. See also Wycherley 1957, 123; Thompson & Wycherley 1972, 160–162.

[35] Thompson 1952, 93; Rosivach 1977, 33–35.

[36] Cf. e.g. Ekroth 2008; 2007; Gebhard & Reese 2005; Studer & Chenal-Velarde 2003. On the architectural setting of dining space, see Bergquist 1990; Cooper & Morris 1990.

[37] It should be noted that there might also have been a clear spatial and temporal distinction between the allotment of choice parts and the distribution of equal parts, as the latter sometimes took place several days after sacrifice and in a completely different setting. For example, the meat of oxen sacrificed on the Athenian Acropolis at Panathenaia was distributed among the citizens in the Kerameikos a few days later (Ekroth 2008, 277–281).

[38] Ar. *Thes*. 558–559: ὥς τ᾽ αὖ τὰ κρέ᾽ ἐξ Ἀπατουρίων ταῖς μαστροποῖς διδοῦσαι / ἔπειτα τὴν γαλῆν φαμεν … In the *Acharnians* 145–146 Aristophanes mentions also sausage from the festival of Apatouria (ὁ δ᾽ υἱός, ὃν᾽Αθηναῖον ἐπεποήμεθα, / ἵρα φαγεῖν ἀλλᾶντας ἐξ Ἀπατουρίων). At this festival, fathers of boys introduced to their paternal phratries were allegedly urged by other phratry members to offer for a sacrifice as big a sheep as they could (see schol. Ar. *Ran.* 798; Harp. 200.15–201.7; see also Deubner 1932, 232–234; Parke 1977, 88–92; Lambert 1993, 143–189; Parker 2005, 458–461). This may explain the extraordinary abundance of meat that remained afterwards, as the two passages attest. Of special interest is the use of the preposition ἐξ in both passages. Its

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The context indicates that under normal circumstances they were meant to cook it at home. In *Acharnians* (1049–1055) Dikaiopolis receives an honorary share of meat sent to him by a groom from a wedding party.[39] In these cases the meat resulting from sacrifices is mentioned, but in a context which has little to do with sacrifice as such.[40]

What I obviously do not try to argue is that meat was not consumed in sanctuaries or that a feast did not usually follow sacrifice, as this would go against all evidence we have. However, what clearly results from the passages discussed is that (1) Aristophanes, just like Homer, occasionally draws a neat distinction between the act of sharing σπλάγχνα and the consumption of *outer flesh*, and (2) that neither of these authors ever confused the two sequences. Therefore, it is legitimate to suspect that, just like for Homer, so for Aristophanes the sharing of entrails also concluded the short period of very high intensity communication with divinities. This is where the sacred ends, to speak in terms of Henri Hubert and Marcel Mauss,[41] and profane or semi-profane ritualised actions of feasting and sharing honorary portions begin.

Outsiders' views

The fact that participation in sharing the entrails was understood as the very core of participation in the sacrifice is further confirmed by the sources that present the point of view of people whose attitudes towards sacrifice were precisely the opposite of those of comic heroes. The author of the 2 *Maccabees* reports with indignation that Antiochus Epiphanes forced Judeans from Jerusalem to share σπλάγχνα at the monthly celebrations of his birthday (6.7: ἤγοντο δὲ μετὰ πικρᾶς ἀνάγκης εἰς τὴν κατὰ μῆνα τοῦ βασιλέως γενέθλιον ἡμέραν σπλαγχνισμόν). A similar policy was subsequently adopted by neighbouring Greek cities, where Judeans who did not conform to the Greek customs and did not take their share in σπλάγχνα were executed (6.8: τὴν αὐτὴν ἀγωγὴν τῶν Ἰουδαίων ἄγειν καὶ σπλαγχνίζειν, τοὺς δὲ μὴ προαιρουμένους μεταβαίνειν ἐπὶ τὰ Ἑλληνικὰ κατασφάζειν). Regardless of how much historical truth there is in this narration, the emphasis put on σπλάγχνα in this case can hardly be a matter of a frivolous poetic choice. It rather shows the method used by prosecutors.

It may be observed that in the case of a typical Greek sacrifice the division of roles was sometimes very complex. The person (or community) who offered a sacrifice very often could act through other agents, various priests, *manteis*, *mageiroi*, *boutypoi*, and others.[42] And yet, with no blood on their hands, the sponsor might have remained the real sacrificer or *sacrifiant*, to use terminology proposed by Hubert and Mauss.[43] Now, what did it mean to participate in a sacrifice? Clearly, for Antiochus Epiphanes, one did not have to participate in its expenses. Yet, being around somewhere when an animal was being killed was not enough. As the passage in the 2 *Maccabees* shows, the real acid test was taking a share of the σπλάγχνα.[44]

A similar perspective is present also in the scholion to *Odyssey* (3.470): τὰ δὲ σπλάγχνα ἤσθιον δεικνύντες, ὅτι ἐξ αὐτῶν ἐγκάτων ἐκ μέσης καρδίας θύουσι τὸ θῦμα τοὺς θεοὺς τιμῶντες καὶ μετὰ προαιρέσεως ("They ate entrails in order to show that they sacrificed from deep inside themselves, from the whole heart honouring gods and out of reverence").[45] Although the association between the nature of σπλάγχνα as internal organs and their function as signifiers of profoundness of someone's piety shall be taken with a pinch of salt, the passage actually shows that in the scholiast's opinion sharing the entrails confirmed the sincere intention of a mortal to initiate contact with deities.

This notion may also lie in the background of two bizarre passages describing the alleged behaviour of historical neo-Pythagoreans and/or legendary Pythagoreans. Both Plutarch and Porphyry[46] state that the followers of Pythagoras abstained from animal food, with exception only of the victims they sac-

formulaic or quasi-formulaic use suggests that the notion of eating meat which came from Apatouria was really widespread.

[39] On sending honorary shares, see Tsoukala 2009; Jacquemin 2008.

[40] Similarily, in the *Lysistrata* 1061–1064, the chorus formulates an invitation for a meal in this way: κἄστιν ἔτνος τι· καὶ / δελφάκιον ἦν τί μοι, καὶ / τοῦτο τέθυχ', ὥστε γίγ/νεσθ' ἁπαλὰ καὶ καλά ("and there's a special pea-soup, and I had a young porker, and I've sacrificed it, so it's getting to be lovely tender meat", transl. Sommerstein 1990). The sequence of events seems crystal clear: an animal has been killed in an act of sacrifice beforehand, but consumption of its delicious meat still belongs to the future. Similar examples: Epicharm., fr. 146 (Kassel & Austin); Pherecrates, fr. 162 (Kassel & Austin). In both cases there is clear distinction between the sacrifice and the feast, even though the former is an obvious *sine qua non* condition of the latter.

[41] Hubert & Mauss 1899.

[42] See e.g. Hitch 2009; Berthiaume 1982.

[43] Hubert & Mauss 1899.

[44] It needs special emphasis that forcing Judeans to take part in animal entrails was a particularly effective weapon in a cultural and religious war against them, as it outwardly breaks one of their most fundamental alimentary/religious taboos. Cf. *Sapientia Salomonis* 12 (with many thanks to Jonathan Greer for turning my attention to this passage). On the policies of Antiochus, see e.g. Gruen 2016, 333–357; Mittag 2006, 256–259. On differences between Jewish and Greek sacrifice, Petropoulou 2008, 117–123.

[45] Cf. schol. *Il.* 1.464c (Erbse): σπλάγχνα: ἀντὶ τοῦ τῶν σπλάγχνων, ὅ ἔστι τῶν ἐντοσθιδίων, ἥπατος νεφρῶν καὶ τῶν ἑξῆς. τούτων δὲ πάντων ἀπεγεύσαντο, ἀπὸ σπλάγχνων καὶ ψυχικῆς σπουδῆς δηλοῦντες τὴν θυσίαν ποιεῖν ("entrails: instead of: of the entrails, which is, of the innards, liver, kidneys and the like, of all which they tasted, showing that they performed a sacrifice out of the zeal of their soul and guts").

[46] Plut. *Quaest. conv.* 729c; Porph. *Abst.* 2.28.2.

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rificed themselves.[47] Plutarch writes: μάλιστα μὲν ἐγεύοντο τῶν ἱεροθύτων ("at any rate, they would taste of the sacrificial victims").[48] Porphyry: ὅτε δὲ εἰς ἀπαρχήν τι τῶν ζῴων ἀνθ' ἑαυτῶν μερίσειαν τοῖς θεοῖς, τούτου γευσάμενοι μόνον, πρὸς ἀλήθειαν ἄθικτοι τῶν λοιπῶν ὄντες ἔζων ("Whenever they came to distribute an animal victim to the gods, as a sacrifice instead of themselves, they merely tasted of it, and lived in reality without touching the remaining parts [i.e. of the sacrificed animals]").[49] None of these passages actually mentions σπλάγχνα explicitly. Yet Porphyry seems to presuppose an opposition between something that Pythagoreans tasted and the remnants of a sacrificial victim that remained untouched. What is even more transparent is that both passages show that consumption of at least a very small piece of animal's body, as the verb γεύω implies,[50] was paramount in order to make a sacrifice *valid*, so to speak. Once again, as in case of the 2 *Maccabees*, it is an acid test; this time, however, one performed by worshippers on themselves.

If the essence of participation in a sacrifice consisted of *tasting some of the* σπλάγχνα, the ritual reduced to its very substance (something we might call *a minimal sacrifice*) falls very close to the communion model proposed by William Robertson Smith.[51] It is not about the pleasure of eating large portions of entrails, or at least, it does not have to be. Even though it might have been and probably was a source of sensory pleasure, as the comic image of the ritual suggests, there are good reasons to believe that σπλάγχνα themselves were seen first and foremost as a particularly powerful vehicle of communication with the suprahuman sphere.

Oath-sacrifice

Leaving aside extispicy as an art of reading signs imprinted, most probably, exclusively on one or two of the σπλάγχνα, namely on the animal's liver and gall bladder,[52] it is worth noticing that entrails were commonly used in oath-taking rituals. An iconic example is provided by the passage in Herodotus (6.67–68):

> [Δημαρήτος] παρασκευασάμενος ἔθυε τῷ Διὶ βοῦν, θύσας δὲ τὴν μητέρα ἐκάλεσε. Ἀπικομένῃ δὲ τῇ μητρὶ ἐσθεὶς τὰς χεῖρας οἱ τῶν σπλάγχνων κατικέτευε, τοιάδε λέγων. "Ὦ μῆτερ, θεῶν σε τῶν τε ἄλλων καταπτόμενος ἱκετεύω καὶ τοῦ ἑρκείου Διὸς τοῦδε φράσαι μοι τὴν ἀληθείην, τίς μευ ἐστὶ πατὴρ ὀρθῷ λόγῳ … ἐγῶ σε ὧν μετέρχομαι τῶν θεῶν εἰπεῖν τὠληθής"
>
> ([Demaratus] made ready and sacrificed an ox to Zeus; after which sacrifice he called to him his mother. She came, and he put a part of the entrails in her hands, and said in entreaty: "My mother, I entreat you in the name of the gods, but especially Zeus of the household in whose presence we stand: tell me now truly, who was in very deed my father … Therefore I entreat you by the gods to tell me the truth").[53]

In this passage, it is interesting that Demaratus is very keen to prepare the stage for his purposes and, taking his mother by surprise, he calls her exactly at the point when the σπλάγχνα are ready to be put in her hands. The pleasure of the text describing this stratagem presupposes that entrails of a sacrificial victim might have been used as an extremely powerful weapon, which leaves no place for evasion.

Although we do not know many details concerning the handling of σπλάγχνα in the oath-taking ritual, it is quite remarkable that our sources insist on taking them into one's hand.[54] Whether or not they were subsequently eaten remains unclear, given the scarcity of the available data. It would be tempting to think that such a procedure is attested in the sacrificial calendar from Kos, in which an act of eating σπλάγ-

[47] Or in their stead, as Porphyry says, most probably following Theophrastus' theory of sacrificial substitution. See Obbink 1988, 281–282. On the relationship between Porphyry's work and Theophrastus, see Fortenbaugh *et al*. 1992, 405–437; Pötscher 1964; Bernays 1866.

[48] On the rather obscure adjective ἱερόθυτος (which is used substantively here), see Casabona 1966, 144; Winand 1987, 21–27.

[49] Translation by Obbink 1988, 281.

[50] The verb γεύω takes σπλάγχνα as a complement often enough to call this a formulaic use (e.g. Pl. *Resp.* *8.*565d; schol. Ar. *Pax* 1109c) moreover, Eustathius in his commentary on the *Iliad* 1.464 explains that the Homeric σπλάγχνα πάσασθαι is an equivalent of γεύσασθαι. Apparently, the latter form was more common.

[51] Robertson Smith 1914, 269–311.

[52] Furley & Gysembergh (2015, 4) mention an unpublished papyrus in which reading signs from an animal's lung is mentioned. To date this is the only known exception of exclusive use of liver and gall bladder in extispicy. At any rate, however, given its late date and Egyptian provenance, it may hardly be expected to change radically our perception of Greek ritual practice, at least in earlier periods. See also Flower 2008, 153–210; Jameson 1986.

[53] Translation by Godley 1922 in the Loeb edition. Torrance in one of most recent publications on the subject matter (Sommerstein & Torrance 2014, 140, n. 31) observes that this passage does not actually describe an oath-taking ritual, as "holding the entrails does not itself constitute an oath since there is no appeal to a sanctifying witness". Indeed, we are not told whether Demaratus' mother swore by gods or not. It is very likely that the passage describes an *oath challenge* rather than an oath itself. This means that Demaratus made the stage ready in case his mother refused to give satisfactory answers immediately. Only then he would compel her to take a formal oath, making use of the victim's entrails. Thus, the function of σπλάγχνα remains the same, regardless of whether the oath was really taken or not. See Sommerstein & Bayliss 2013, 101–108.

[54] Aeschin. *In Tim.* 1.114; Lycurg. *Leoc.* 20. On other instances of touching things with hands or stretching hands towards earth or sky at the time of oath-taking, see Sommerstein & Torrance 2014, 143–146.

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χνα (σπ]λαγχνίζεται) is referred to in a context of a sacrifice to Charites.[55] However, what is far from certain (but not impossible), is that this sacrifice involved taking oath, as the first editor of the inscription conjectured.[56]

A little more straightforward, but still far from conclusive, seem to be descriptions of some collective oath-sacrifices performed by groups swearing mutual loyalty. Most notably, Cassius Dio (37.30) writes about Catilina: παῖδα καταθύσας καὶ ἐπὶ τῶν σπλάγχνων αὐτοῦ τὰ ὅρκια ποιήσας ἔπειτα ἐσπλάγχνευσεν αὐτὰ μετὰ τῶν ἄλλων ("he sacrificed a boy, and after administering the oath over his vitals, ate these in company with others").[57] Leaving aside the problem of the historicity of such allegations of cannibalism, it is worth noticing that Catilina's perverted ritual must have reproduced structure of something that Dio's readers were familiar with. Thus, it seems probable that similar rituals were also performed under less extraordinary circumstances, the only difference being that instead of a human, an animal would be killed. To a certain degree, corroboration is also found in the parallels this procedure finds in two fictional oath-taking ceremonies described in Plato's *Critias* (120a–b)[58] and Aristophanes' *Lysistrata* (181–239) in which instead of σπλάγχνα, a victim's blood and wine are used respectively.

As the two latter pieces of evidence suggest, not all oath-taking sacrifices made use of σπλάγχνα. Sometimes the animal's blood was used, sometimes the person swearing would handle objects called τόμια or they would stand on them. As for the latter, the exact meaning of the word τόμια has been hotly disputed over the last hundred years.[59] Even though it seems that at least sometimes it could have referred to animal's entrails,[60] in many cases it covered other semantic fields. It seems very likely, for instance, that the skeletons of three animals cut in half found on Thasos represent traces of the ritual of cutting τόμια.[61] At any rate, from what we know about oath-taking in ancient Greece, it results that it was a high intensity ritual in which the swearing party would expose themselves to an extremely serious risk of divine wrath, somehow represented by the fate of a slain animal or other objects that were damaged or annihilated in the process.[62] Thus, it was very different from the θυσία, a joyful type of sacrifice.[63] Yet, seeing that the latter was probably more common than oath-taking rituals, it seems reasonable to think that the structure of the θυσία was the main force shaping the conceptual frame of all kinds of blood rituals. The similarities between the use of σπλάγχνα in θυσία and ὅρκια cannot be said to be merely circumstantial. Of paramount importance seems to be the "old-fashioned" concept of communion coined by Robertson Smith,[64] which quite clearly underlies all kinds of sharing σπλάγχνα, but is especially manifest in cases of more or less fictional descriptions of oath-taking sacrifices within groups of conspirators, such as in the circle of Catilina.[65]

Towards conclusions

This paper provoked an unexpectedly vivid reaction at the conference in Uppsala in spite of the fact that it presents no new material and that its scope is limited to a humble examination of the logical consequences of some venerable and already classical theories. It has been rightly observed that one should not downgrade the role of honorary shares of meat in various ritualized behaviours such as erotic courtship or rewarding victorious poets at festival contests, to name but two examples.[66] Nor would it be wise to deny the importance of sharing equal portions within the context of poliadic or any other communal feasts. Having said that, I would like to stress that these long-established aspects of the cultural role of meat in ancient Greece are not what is at stake here.

It is one of the commonplaces of the modern debate on the nature of Greek religion(s) that it was embedded in all other kinds of social or cultural practice and, as such, it cannot be analysed as a phenomenon totally apart from its context.[67] Yet this well-established fact should not exclude the possibility of looking at Greek religious experience as something that cannot be simply explained away as entirely instrumental to ends that might have transcended it. This observation seems to lie at the roots of the recent opposition to established models of

[55] *CGRN* 86 C = *IG* XII.4 275 C = *LSCG* 151 D, lines 5–17.
[56] Herzog 1929, 12–14. See Pirenne-Delforge 1996, 208–214, and her contribution to the present volume, *Chapter 10*. See also Jim 2014, 33–34.
[57] Transl. Cary 1914 in the Loeb edition.
[58] For bibliography, see Nesselrath 2006, *ad loc*.
[59] Stengel (1910, 78–85) argued that the noun τόμια must have referred to the testicles of animals castrated at some point of the ritual process. Although it has been argued that this interpretation is not well grounded in ancient sources (most notably by Casabona 1966, 220–225), it is not without reason still taken as one of the possible options. See Sommerstein & Torrance 2014, 138–142 (with further references in n. 32); Ekroth 2014.
[60] Thus Rudhardt 1958, 283–284.
[61] Blondé *et al*. 2003; 2005.
[62] Faraone 1993; 2012; Sommerstein & Torrance 2014, 143–148.
[63] On sacrifice as a joyful occasion (against Burkert's view) see especially Peirce 1993.
[64] See also Parker 2011, 139: "As presented by Robertson Smith, the theory contained the further proposition that what was eaten at the sacred banquet was in a sense the god himself. This disastrous addition, an amalgam of the Christian Eucharist with the nineteenth-century theories of the totemic animal inevitably bred resistance to the whole approach. Stripped of that excess, the theory has considerable appeal."
[65] On *nomen-omen* συνωμοσίαι, see Sommerstein & Bayliss 2013, 120–128.
[66] See e.g. Tsoukala 2009; Nagy 1990, 269–275; and Lissarrague in the present volume, *Chapter 4*.
[67] Cf. e.g. Price 1999, 3.

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reading Greek religion and, most notably, Greek sacrifice.[68] This shift in scholarly paradigms suggests that even without questioning the appropriateness of some answers traditionally given to some questions, one may also observe that neither the answers nor the questions satisfy all our epistemological needs.

Much scholarly attention has been paid to the division of sacrificial victims. Since Friedrich Puttkammer, it seems beyond any doubt that apportioning sacrificial meat had serious meanings and consequences, as it served as a means of reflecting and negotiating the social structure.[69] Yet, reconstructions such as that proposed by Puttkammer, which reproduce the matter of fact tone of inscriptions regulating division of meat, at the same time tend to neglect the temporal aspect of ritual performance and the fluctuation of its intensity, which are crucial when it comes to a discussion of meanings, an aspect indispensable for a thick description of a ritual (as Clifford Geertz called it). Only a little more attention to the vertical axis of communication with divinities was paid by Detienne, who in his *Dionysus Slain*, developed the most influential model of reading the opposition between σπλάγχνα and non-σπλάγχνα (σάρξ). According to him, this dichotomy results in "the opposition between two circles of eaters of sacrificial meat. The first is the relatively tight circle of co-eaters of σπλάγχνα; the other is the larger, less restricted one of participants in the sacrificial meal."[70] Or, as Detienne puts it elsewhere:

> The ritual insists on the distinction between the viscera and the flesh to be consumed—chronological order and type of cooking—in two ways. The viscera are roasted on skewers in the first phase of the sacrifice and eaten on the spot near the altar by the inner circle of those taking full part in the sacrifice, while the quarters of meat, put to boil in the cauldron, are intended either for a larger feast or for distribution, sometimes over a distance. As for the entrails (ἔντερα), prepared as sausages they are consigned to the periphery of the sacrificial meal.[71]

This reading gives justice to all aspects that were central to Detienne's ambitious plan of interpreting sacrificial practices as a matrix of the socio-political structure of Greek *poleis*. On the assumption that virtually all meat came from sacrifices,[72] it seemed plausible that every sausage consumed at any distance from an altar logically presupposed and symbolically evoked a sacrifice. Thus, it operated as a link between the periphery where a consumer could have been located and the symbolic centre of the social cohesion incorporated by an altar. Yet, given the emphasis that has been laid recently on the fact that not all meat that was eaten in ancient Greece came directly or even indirectly (e.g. via markets) from sacrifice, the notion of close and obligatory association between meat consumption and ritual practice is no longer tenable.[73] This does not mean, however, that Detienne's theory collapses or stops being useful. Within the model that postulates reading Greek religion as an integral part of the cultural system, it might have been convenient to dissolve or ignore the boundaries between the experience of the sacred and all other phenomena it came into contact with.[74] Yet, however productive this approach might be, it seems quite natural that it gives justice only to a chosen part of the reality (as a map by definition is not a territory), at the cost of ignoring what might have seemed central for those who were involved in actual ritual practices.

Shifting perspective towards an emic approach permits us to grasp the opposition that is to a large degree reflected on the horizontal axis of social interaction (individuated by Detienne), but which, at the same time, is distinct from it, as it operates on the vertical axis of communication between human and suprahuman. The data examined in this paper show that for the Greeks participation in σπλάγχνα distributed immediately (or almost immediately, as in the case of Telemachus) after roasting them over the fire blazing from the gods' share was essential for θυσία sacrifice, just as much as eating outer flesh was apparently often irrelevant[75] from the point of view of the implicit grammar of the ritual conceived as a means of communication with gods. Thus, given that the meat

[68] See especially Bremmer 2019, 303–335; Naiden 2013; Lincoln 2012 (with polemics in Bremmer 2018, 232–236); Graf 2012; van Straten 2005.

[69] Puttkammer 1912.

[70] Detienne 1979a, 77.

[71] Detienne 1989, 10. Cf. Detienne 1979b, 20: "*Le rituel insiste sur l'opposition entre les viscères et les chairs de consommation, de deux manières : par l'ordre dans le temps et par les modalités de cuisson. Les viscères sont rôtis à la broche, dans la première phase du sacrifice, et mangés sur place à proximité de l'autel par le cercle étroit de ceux qui participent pleinement au sacrifice, tandis que les quartiers de viande, mis à bouillir dans les chaudrons, sont destinés soit à un banquet plus large, soit à des distributions parfois lointaines. Quant aux entrailles, accommodées en saucisses et boudins, elles sont reléguées en lisière du repas sacrificiel.*"

[72] Detienne 1989, 3 (= 1979b, 9).

[73] The picture, certainly too complex to be treated at length here, comprises two problematic facets: on one hand, we know that some sacrificial meat was sold (we also know that not only sacrificial meat was sold; see especially Naiden 2013, 232–275). On the other hand, it seems clear that meat consumed in sanctuaries did not necessarily come from sacrifices performed on the spot or even from sacrificial species of animals (Ekroth 2007; 2008; 2009; Scullion 2013). Both aspects combined seem to suggest that the origins of meat were irrelevant from a religious point of view (see also Bednarek 2017).

[74] On limitations of the functionalist approach (in broad sense of this term that embraces structuralism) see recently Kindt 2012. See also Harrison 2015.

[75] Obviously, I do not mean rituals that were markedly different from θυσία, such as those that may not have required any consumption of all animal's meat.

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could have been completely devoid of sacredness, referring to the opposition between its lower and higher degree may simply be inappropriate in this context. This means that even though sharing special/honorary and equal/democratic portions of meat was clearly a means of creating and negotiating social bonds and distinctions, it does not amount to the fact that Detienne's outer circle of participation in victims' flesh was distinguished from the inner circle of those who shared the σπλάγχνα by what can be legitimately called a lower degree of sacredness.

To put it in a sharp relief, it seems legitimate to underline that the sacrificial ritual contributed to the creation of strong bonds within the narrow group of those who participated in it by sharing σπλάγχνα. The outer circle is marked by lack of participation in the sacrifice (= total lack of participation in σπλάγχνα, not lower level of participation) combined with participation in shares of outer flesh. This meat might have resulted from sacrifice, but from the point of view of its religious meaning, it was understood as its irrelevant by-product. Nevertheless, outside the sphere of communication with the superhuman it conveyed an important message, being used as a highly praised vehicle of prestige, not to mention its more mundane aspects, such as taste and nutritious value. Thus, portions of an animal victim's meat may be described as analogous to various other objects such as fish[76] or booty,[77] whose distribution was highly meaningful from a socio-political point of view, but did not necessarily reflect any kind of religious concerns.[78] Unlike them, σπλάγχνα were central both for religious and social reasons.

Robert Parker very aptly compared sending honorary portions of sacrificial meat to the contemporary practice of sending slices of a wedding cake to friends and relatives.[79] I would like to push this figure of speech a little further than Parker probably intended by observing that this latter ritualised form of behaviour expresses strong distinction between two groups of people related to those who perform the rite. At the same time it indicates some degree of proximity and distance from ego. If you send a piece of wedding cake to your neighbours, it is not only because you care for good relationship with them, but also because you did not invite them to the wedding itself. And being at a wedding is very different from receiving a slice of cake, not only because the opposition between the two modalities of participation in an event articulates two distinct levels of social bonds, but also because it involves two different kinds of bonds. The same may be true in the case of the distinction between being at sacrifice, which involved sharing σπλάγχνα from the altar on one hand, and being allotted a piece of meat from the victim on the other. Even an honorary share sent to someone might have meant *I'm thinking of you, but in a different way than I think of those whom I invited to share σπλάγχνα.*

BARTEK BEDNAREK
Ludwig-Maximilians-Universität
bp.bednarek@uw.edu.pl

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[76] Fish are notorious for the social and political significance of their consumption, apportioning, prices, etc., as well as for possessing relatively little religious significance. See Wilkins 2000, 293–304; Davidson 1993.

[77] See e.g. Van Wees 1992, 299–310; Benveniste 1973, 334–345.

[78] It may be instructive to look at Jacquemin's stimulating article 'La participation *in absentia au* sacrifice' (2008) in which the author quotes a number of decrees regulating sending portions or special cuts of sacrificial meat. According to Jacquemin, this act of sharing animals' flesh amounts to participation of some special persons in sacrifices in spite of the fact that they were not present at the spot when the rituals took place. This is absolutely convincing as long as we tend to focus on the social side of sacrifice, as Jacquemin admittedly does. Her essay begins with the statement: "*La sacrifice est l'occasion d'affirmer l'unité d'une communauté qui peut être civique, infra-civique ou supra-civique, mais qui peut être aussi un groupement d'individus sur une base cultuelle par le partage communautaire de viande (et du vin) avec les dieux et à l'intérieur du groupe.*" The two aspects of sacrifice that are conspicuously absent from this account are the vertical axis of communication with divinities and the distinction between σπλάγχνα and meat. I tend to believe that in order to make someone participate *in absentia* in a sacrifice conceived as a religious ritual and not merely a social event, one had to bring them a piece of viscera, exactly as people of Pylos did when they met Telemachus.

[79] Parker 2005, 43.

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VINCIANE PIRENNE-DELFORGE

10. The viscera (*splanchna*) and the "Greek way" of sacrificing

Abstract

The discovery of a remarkable cult regulation at Marmarini in Thessaly has recently brought to light an exceptional mention in our epigraphic documentation: the statement that a sacrifice could be performed "according to the Greek norm". As this sacrifice highlights the *splanchna* ("viscera") of the animal and the parts placed in the fire (on the altar), the present study offers a thorough analysis of the role of the viscera in the sacrificial process attested in Greek narratives as well as in ritual norms, in order to test the hypothesis that the combustion of a part for the gods and the specific manipulation of the viscera constitute, beyond local variations, the essential characteristics of the "Greek way of sacrificing".*

Keywords: Greek animal sacrifice, Greek literature, Greek inscriptions/epigraphy, Marmarini inscription, Greek ritual norm (*Hellenikos nomos*, *ritus Graecus*), sacred parts (*hiera*), viscera (*splanchna*), heart, lung, liver, spleen, kidneys, roasting, altar, table

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As Robert Parker recently pointed out, standard accounts of Greek sacrifice in scholarship regularly emphasize the fact that *splanchna* "were distributed for immediate eating among the inner circle of participants at a sacrifice, the group known as the σπλαγχνεύοντες or συσπλαγχνεύοντες".[1] Such verbs are quite uncommon in our evidence, as we shall see, but the act to which they refer is well known to the readers of Homer and Aristophanes: it is notably the fact of eating. But edibility is not the only quality of the viscera taken from a sacrificial animal, just as burning the divine part at the altar is not simply "destruction". The complex progression of the ritual gives these elements a specific dimension that goes beyond the superficial observation of gestures and actions around the altar: the fact that textual evidence is likely to call them *hiera*, "sacred things", must be seriously taken into account. However, in the context of ancient Greek religion, no generalizing statement can be made without testing it against the fragmented evidence from several hundred cities. The present study aims to address the place of the *splanchna* in a certain "Greek manner" of sacrificing to the gods, in view of the variety of local practices. This question has been unexpectedly legitimated through the recent discovery in Thessaly of a ritual norm that explicitly evokes a sacrificial *Hellenikos nomos* referring in detail to *splanchna*. But before addressing this inscription, it is first necessary to deal more generally with the *splanchna* in our evidence.

Homeric preliminaries

SACRIFICING AT AN ALTAR

In the more extended epic descriptions of sacrifice, after the skinning of the carcass, the bones of the thighs are extracted and covered with fat, to which tiny pieces of raw meat are add-

* I warmly thank Gunnel Ekroth and Jan-Mathieu Carbon for inviting me to the inspiring *From snout to tail* conference. The latter is entitled to my full gratitude for decisive discussions on the topic of *splanchna* in inscriptions and for making my English much better. The former asked me pertinent questions which helped to clarify some parts of the argument. I also warmly thank Robert Parker for fruitful discussions and for adding some final polish to this paper, written in a language which is not my own. An abridged version of the analysis of the *splanchna* in the Marmarini inscription was published in French in Pirenne-Delforge 2020, 145–153.

[1] Parker 2018, 79.

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ed, in order to form the divine part burnt on the altar.[2] Meanwhile a share of *splanchna* is detached, skewered and roasted in the fire of the altar, probably once the surge of flame around the divine part has diminished.[3] In this context, tasting the *splanchna* is the first occasion for the human consumption of animal parts, and seems to be an important step in the whole process.[4] The case of the sacrifice offered by the Pylians in the *Odyssey* gives evidence for this: when Telemachus and Mentor arrive in Pylos, they are welcomed by their hosts, who have already started the sacrificial performance; the latter involve the newcomers in the operation by asking them to pour a libation, to recite a prayer, and to eat a share of the *splanchna*, although the Pylians had already done so.[5] Finally, the remains of the animal (τ' ἄρα τἆλλα) are cut apart, roasted,[6] and shared equally between the participants who, the epic tells us, rejoice in this feast glorifying the gods, who rejoice in turn.[7]

In epic, the consumption of the *splanchna* has two concomitant effects: first, it closely associates the performers with the combustion of the divine share, which is the moment in the sacrificial operation that involves the gods; secondly, it creates a sense of community, as well as of privilege, between those who taste these delicate pieces of food that do not last long once removed from a slaughtered animal.[8] Accordingly, even if three major parts of the animal can be identified in epic sacrifice performed publicly by a group (the divine part, the *splanchna*, the meat subsequently prepared for the festive banquet[9]), the ritual process, seen from the perspective of animal division, is structured in two main sequences, first at the altar, secondly at the banquet.

SACRIFICING AT HOME

In Book 14 of the *Odyssey*, Eumaios kills a boar in honour of Odysseus who still remains unknown to him.[10] This ritual killing next to the hearth (420: ἐπ' ἐσχάρῃ) illustrates that welcoming a host with a meal of meat after killing and cutting an animal does not imply the same sequence of gestures as a sacrifice at an altar. Two differences deserve to be emphasized: there is no reference to the thighbones burnt for the gods[11] or to the *splanchna* tasted by the people involved in the operation. However, the gods are not forgotten by the swine-herd: some pieces of hair are thrown into the fire before the killing "for the Immortals"; a prayer is made "to all the gods". After the killing, pieces of raw meat from all parts of the body deposited on the rich fat and sprinkled with flour are also put into the fire of the domestic hearth. All these manipulations are like a "household" enactment of the phase "burning the divine share" of the Iliadic sacrifices, even with an indirect reference to barley. As Jan-Mathieu Carbon rightly writes: "the ritual process performed by Eumaios distinctly aims to convey through consumption by fire a measure of all the parts of the animal to the gods."[12] One part of cooked meat from the seven prepared by the pig-herder (probably including the *splanchna*) is "deposited with a prayer" for Hermes and the Nymphs. This parallels the *trapezomata* attested later in our evidence, as we shall see below, or even some aspects of *theoxenia*.[13] It is as if this meal, as with others in epic, modified the expectations attested in sacrifices at an altar: the latter are centred on the divine recipient with whom a communication is initiated and the banquet is like a side effect of the operation for the benefit of the human community; a domestic meal focuses on the human guests, even if the burnt offering to the Immortals, eventually complemented by an unburnt deposition, is still the first step in the chronological process of commensality. The absence of the *splanchna* in this process perhaps suggests that a community of *splanchneuontes* does not need to be defined in the same way around a domestic hearth as it is around an altar.[14]

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[2] *E.g.* Hom. *Il.* 1.451–474, 2.402–433; *Od.* 3.5–10, 3.418–472, 12.343–365, 14.413–456. Zooarchaeological evidence attests that the burning of thighbones is a ritual practice dating back to the Early Iron Age or even inherited from the Bronze Age, see Ekroth 2011, 18.

[3] On this surge of flame, see Morton 2015, 72, and his paper in the present volume, *Chapter 2*.

[4] Hom. *Il.* 1.464, 2.427; *Od.* 3.461. Cf. *Od.* 3.9.

[5] Hom. *Od.* 3.40–64. See e.g. Rudhardt 1992, 255; Durand 1989, 92; Ekroth 2008a, 93–95.

[6] On the lack of boiling in Homer, see Berthiaume 1982, 15–16, with further evidence.

[7] Rudhardt 1992, 254. The butchering of the carcass, as evidenced on Attic vases and in a few texts (for example Eur. *El.* 819–837), did not follow the epic sequence of sacrifice, since the *splanchna* and other innards were probably removed first, see Berthiaume 1982, 46–47; Durand 1989, 92–97; Ekroth 2008b, 260–264; Carbon 2017a, 172.

[8] Even today, in the age of refrigeration, offal is an easily perishable food. It can only be kept raw for one or two days in the fridge. Once cooked, it should be eaten on the same day. In this volume (*Chapter 9*), Bednarek pushes the argument to the limit by considering that the "essence" of participation in a sacrifice consists precisely in tasting the *splanchna*, thus returning to the "communion model" proposed by Robertson Smith. I do not go that far, either in the search for an essence or to rehabilitate the notion of "communion", rooted in Christianity.

[9] Nicely called *taratalla* by van Straten (1995, 144) who refers to the Homeric formula τ' ἄρα τἆλλα: e.g. Hom. *Il.* 1.465. See also Bednarek in the present volume, *Chapter 9*.

[10] Hom. *Od.* 14.413–429.

[11] According to Ekroth (2011, 20–21, n. 30), "the course of the ritual may depend on the fact that the victim is a pig." Moreover, "the osteological evidence reveals very few instances of pig's bones being burnt as a part of the god's share and pigs may therefore have been sacrificed according to a different ritual." Parker points out to me that this idea goes back to Meuli (1946, 214, n. 1).

[12] Carbon 2017b, 3§6.

[13] Bruit Zaidman 2005, 33–34. See below *note 34*.

[14] During the dinner of the suitors in Odysseus' palace, sheep and goats are killed, and the *splanchna* are first sliced and given to his guest (the

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CONTENT OF THE GENERIC *SPLANCHNA*

Before examining the post-homeric uses of the *splanchna*, the meaning of the word must be addressed. In epic poetry, *splanchna* remain generic and the various organs roasted and tasted in the first sacrificial phase are not detailed. In tragedy, sacrificial *splanchna* are associated with divination, especially the liver.[15] In parallel to this word in the Archaic and Classical evidence, other lexemes refer to the innards of the body. In the *Iliad*, the expression τὰ ἔγκατα generically identifies the viscera and entrails of an animal or a man, while τὰ ἔντερα is only used for describing a soldier seriously wounded in the belly.[16] In the *Odyssey*, the first of the two occurrences of ἔγκατα, added to σάρκες and ὀστέα, belongs to the impressive image of Odysseus' companions being entirely devoured by Polyphemus. The second occurrence is exceptional in the epic corpus: it is used as a *variatio* replacing the *splanchna* in the context of the killing of the cows of Helios, a parodic and impious sacrifice.[17] In a different context but in a similar perspective, the Hesiodic passage relating the Promethean crisis and inaugurating the separation of men and gods juxtaposes the part of the division formed by the white bones of the ox, wrapped in the glistening fat, and the one composed by the "meat and innards" (Hes. *Theog.* 538: σάρκάς τε καὶ ἔγκατα), covered by the unappetizing stomach.[18] The *splanchna* are not yet identified as a specific sacrificial portion among the bones, fat, and meat, as they are in Homer. Hesiod tells an etiological story, without describing a "first sacrifice". Sacrificing to the gods will come later as the ritual consequence of the distance between men and divinities.[19] In the *Theogony*, this process is still in the making.

As an observer of sacrificial division, as well as a practitioner of dissection, Aristotle provides precious information concerning what lies behind the generic term *splanchna*. He is our first systematic witness in this regard and his list includes the heart and the lungs above the diaphragm and, below, in the abdominal cavity, the liver, the spleen, and the kidneys.[20] In the abdominal cavity, one finds also the stomach and the intestines, which form the *entera*, the "entrails". To the list of six organs forming the *splanchna* by Aristotle, the tongue is added in later texts concerned with collecting all the occurrences of "seven elements" in the world: σπλάγχνα ἑπτά, γλῶσσα, καρδία, πνεύμων, ἧπαρ, σπλὴν, νεφροὶ δύο.[21] The tongue is usually "inside" the body and this explains why it can be included in such a list; by contrast, the organic point of view adopted by Aristotle in his treaty *De partibus animalium* properly entails a reference to the tongue only when describing the head.[22] Aristotle also points out the potential faults of the *splanchna*, which make them informative tools in order to ascertain the divine will.[23] In this perspective, we can consider that the *splanchna* refer to the noble "viscera"—the word chosen here to translate the term—and the *entera* to the digestive system, even though there is sometimes an overlap in the use of these words in the literary evidence.[24]

Post-Homeric variations

In the few descriptions of sacrifices found in Classical texts,[25] one identifies, during the ritual now labelled *thysia*, the division of the animal carcass in the three unbalanced parts already attested in epic poetry: divine share to be burnt onto the altar/*splanchna*/rest of the meat.[26] The lack of balance be-

disguised Odysseus) by Telemachos. But the background of the scene is a hecatomb for Apollo and this could explain the emphasis on *splanchna* (Hom. *Od.* 20.245–261, 20.276–278).

[15] Aesch. *PV* 493–495; Eur. *El.* 826–829 and 835–839.

[16] Hom. *Il.* 13.507, 14.517, 17.314, 20.418 and 20.420.

[17] Hom. *Od.* 12.362–365: οὐδ' εἶχον μέθυ λεῖψαι ἐπ' αἰθομένοισ' ἱεροῖσιν, | ἀλλ' ὕδατι σπένδοντες ἐπώπτων ἔγκατα πάντα. | αὐτὰρ ἐπεὶ κατὰ μῆρ' ἐκάη καὶ σπλάγχνα πάσαντο, | μίστυλλόν τ' ἄρα τἆλλα καὶ ἀμφ' ὀβελοῖσιν ἔπειρον, "They had no wine to pour over the blazing sacrifice, but they made libations with water, and roasted all the viscera over the fire. Now when the thighs were wholly burned and they had tasted the viscera, they cut up the rest and spitted it" (transl. A.T. Murray, slightly modified).

[18] Hes. *Theog.* 538–541.

[19] Hes. *Theog.* 538–541, 556–557, with the interpretation by Vernant 1989 and Rudhardt 1981, 217–226. Cf. Ekroth 2008a, 89, n. 9; Parker 2011, 140–141; Carbon 2017b, 1§1. See also Pirenne-Delforge 2018, for an analysis of the "theology" of sacrifice by Vernant.

[20] Arist. *Part. an.* 3.5.668b30–3.9.672b12.

[21] Theon of Smyrna, *De utilitate mathematicae*, p. 104, lines 15–16 (Hiller). See also Iambl. *De communi mathematica scientia*, p. 67, lines 18–20 (Falco). The gall-bladder is not mentioned in any list, but is closely related to the liver. Aristotle emphasizes its divinatory potential (*Part. an.* 4.2.677a1–3).

[22] Arist. *Part. an.* 2.17.660a–661a. The association of the tongue with the *splanchna* is later attested by Plutarch (*Mor.* 166a–b) who emphasizes the divinatory potentials of this organ.

[23] Arist. *Part. an.* 3.4.667a31–3.9.667b108.

[24] The distinction between *splanchna* and *entera* is clearly made for the preliminary offering of a piglet to be wholly burnt for Zeus Polieus on Kos: *CGRN* 86, A lines 34–35: τοὶ δὲ κά[ρυκες κ]αρπῶντι τὸμ μὲγ χοῖ|[ρ]ογ καὶ τὰ σπλάγχνα ἐπὶ τοῦ βωμοῦ ἐπισπένδοντες μελίκρατον, ἔ[ντ|ερ]α δὲ ἐκπλύναντες παρὰ τὸ[μ βωμὸν κα]ρπῶντι. See Bednarek in this volume, *Chapter 9*. I do not here address the vexed question of the *endora* to be "wrapped" and burnt on hearths for Zeus Polieus and, on another occasion, for Hera Argeia Eleia Basileia: *CGRN* 86, A lines 47–50; D lines 8–10. According to Stengel (1910, 85–91), these were *splanchna*. See also Paul 2013, 351–354; Pirenne-Delforge & Pironti 2016, 195–198; compare Georgoudi in this volume, *Chapter 8*. In a sanctuary located at Kaphizin on Cyprus, an object called σπλανχνοεντεριφόρον was dedicated to a local nymph: Mitford 1980, no. 285 (224/222 BC). Cf. the pieces of equipment called ἐπισπλαγχνίδιοι in the Hellenistic accounts of Delian festivals: e.g. *CGRN* 199, line 7 (178 BC).

[25] The main ones are Eur. *El.* 800–830 and 835–839; Ar. *Pax* 941–1062, 1074 and 1106–1126; Men. *Dys.* 394–399, 440–441, 447–453, 473–475, 505–507 and 546–549.

[26] Ar. *Pax* 941–1059.

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tween the first two components and the third is quantitative, but also, in a ritual perspective, qualitative: in literary texts, as well as in inscriptions, the divine part and the *splanchna* can be called *hiera*, "sacred things",[27] which is not the case for the meat eaten during the banquet on site or taken away by the participants.[28] In other words, there is more meat in the third stage of a sacrifice but more sacredness during the first two. As Jean Rudhardt rightly wrote: "In a certain sense, what is ἱερός is located on a path leading from god to man, or from man to the gods."[29]

The expression *hierà kalá*, repeatedly found in Xenophon,[30] refers to the actions involving these "sacred parts", at a time when effective and positive communication with the gods is expected. From the Classical period at least, sacrificial divination involves the visual analysis of the *splanchna* cut from the animal, especially the liver and the gall-bladder, as well as the observation of what is happening on the altar.[31] The tail of the sheep "doing nicely" during the sacrifice staged in Aristophanes' *Peace* is based on such an expectation: this part of the animal offered to the goddess is a good sign when it curves from the heat of the fire.[32] The same comedy also presents the image of a large distribution of *splanchna*, if we consider that the gesture of sharing them (συσπλαγχνεύετε) with the spectators built on shared knowledge of (Attic) sacrificial procedure.[33]

An additional element complicates the picture of the "three parts" in the Classical corpus of images and the Classical and Hellenistic corpus of texts: the textual evidence can refer to a table next to the altar where some supplementary portions—not to be transformed into smoke—are added to the part consumed by fire in honour of the divine recipient.[34] Images on vases also illustrate the presence of tables next to altars.[35] In texts, this piece of furniture in the sacrificial scene can be filled with cakes, fruits, parts of meat and also parts of *splanchna*.[36] Moreover, a verse of Aristophanes and some Classical inscriptions from Chios attest that *splanchna* were placed "on hands" or "on knees" (sometimes both),[37] thus extending to the statue of the divine recipient the notion of *trapezomata*.[38] This confirms, if necessary, that the things deposited on

[27] Eur. *El.* 826–829, for the *splanchna*, and Pl. *Resp.* *3.*394a; *Leg.* *7.*800b; Xen. *Hell.* 3.4.4, and later Plut. *Conjug.* 141e, for the part burnt on the altar. Cf. Casabona 1966, 13–15; Rudhardt 2008, 139–141.

[28] In inscriptions, the generic *hiera* can refer to the parts burnt on the altar or to those deposited on a *trapeza*: *e.g.* *CGRN* 147, line 10 (Kos, first half of the 3rd century BC); *CGRN* 152, lines 183–184 and 189–190 (Thera, end of the 3rd–early 2nd century BC); *CGRN* 163, lines 16–17 (Kos, first half of the 2nd century BC); *CGRN* 208, lines 18–19 (Kos, second half of the 2nd century BC); *IG* XII.4 304, lines 39–40 (Kos, 2nd century BC). For Kos, see Paul 2013, 340–346. However, in the epigraphic evidence, there is no label referring to the rest of the meat, the epic *taratalla*. One finds τὰ κρέα (e.g. *CGRN* 84, line 23, Attic, *genos* of the Salaminioi, 363/2 BC; *CGRN* 85, B lines 55–56, Kos, mid-4th century BC); μερίδες (*CGRN* 92, line 12, Athens, 335–330 BC); σάρκες for bovine meat (*CGRN* 26, B lines 13–14, Attic, mid-5th century BC).

[29] Rudhardt 2008, 153: "*D'une certaine manière, ce qui est ἱερός se trouve sur une voie qui conduit du dieu à l'homme ou de l'homme aux dieux.*"

[30] Xen. *An.* 1.8.15 (τὰ ἱερὰ καλὰ καὶ τὰ σφάγια καλά), 4.3.9, 4.3.19, 6.5.2 and 6.5.9. On the esthetic dimension of ritual action, see now Mikalson 2017, 253–264.

[31] The *locus classicus* is Aesch. *Pers.* 484–499. See also Xen. *An.* 2.1.9, 2.2.3 and 6.4.15, with *hiera* for divination purposes. Concerning the "cut *splanchna*", see the comparison made by Strabo with Lusitanian divinatory practices: the barbarians did not cut the *splanchna* out of the sacrificial animals to obtain predictions from them, which is an implicit contrast with the Greek practice (Strabo 3.3.6: Λυσιτανοὶ τά τε σπλάγχνα ἐπιβλέπουσιν οὐκ ἐκτέμνοντες).

[32] Ar. *Pax* 1053–1055. See van Straten 1995, 118–130; Morton 2015; Carbon 2017b, 2§1. Cf. also Morton in this volume, *Chapter 2*.

[33] Ar. *Pax* 1115–1116. For practical reasons, a selection of the participants "close to the altar" was perhaps made when the attendance was huge, but we cannot be completely sure. Cf. here Bednarek (*Chapter 9*), building on an argument presented by Detienne. In the famous inscription of Erchia, dated to the 4th century BC (*CGRN* 52, col. A lines 36–43), the expression μέχρι σπλάγχνων punctuates the sacrificial process; during the festival of Zeus Meilichios in Agrai, the sacrifice of a male sheep was accompanied by a wineless libation "until the viscera". We do not know if μέχρι here is inclusive (until the *splanchna* have been eaten, according to Daux 1963, 629, even if he confuses "*combustion*" and "*rôtissage*") or exclusive (until the *splanchna* start to be eaten, as Jameson 1965, 164, argued). But this rule confirms that eating the *splanchna* is an important scansion of the sacrificial process.

[34] Ar. *Pax* 1032 and 1059; Ar. *Plut.* 678. To quote only some examples from the Classical period referring to a *trapeza* related to a *thysia* (except in the context of a *theoxenia* and in the context of the offering of a *trapeza* to a hero or a heroine, as in some Attic texts): *CGRN* 13, A lines 18–19 (Selinous, first half of the 5th century BC); *CGRN* 56, col. II lines 14–15 (Athens, Marathonian Tetrapolis, mid-4th century BC); *CGRN* 57, *passim* (Athens, Aixone, early 4th century BC); *CGRN* 76, lines 14–15, 19–20 and 24–25 (Erythrai, *c.* 380–360 BC).

[35] Gill 1974; Durand 1986, 116–117; van Straten 1995, 155; Ekroth 2011; Naiden 2013, 56–57.

[36] The *trapeza* for offerings close to altar must be distinguished from the table where the animal is cut up, which is not related to the altar in the same way. Cf. the famous Ricci Hydria, with the analysis of Durand 1989, who provides other examples of cutting tables.

[37] Ar. *Av.* 518–519; *CGRN* 170, lines 4–8 (5th century BC); *CGRN* 36, lines 4–6 (end of the 5th century BC); *CGRN* 41, lines 11–14 (end of the 5th–first half of the 4th century BC); *CGRN* 49, lines 5–7 (early 4th century BC); *CGRN* 50, lines 3–5 (early 4th century BC); *CGRN* 66, lines 3–4 (first half of the 4th century BC); *CGRN* 88, lines 1–3 (second half the 4th century BC); and probably also *LSS* 130, lines 4–5 (4th century BC). On this corpus, see Graf 1985, 428–432; Le Guen-Pollet 1991, 15–17; Parker 2006, 67–72; Carbon 2017b, 3§1–3.

[38] A decree concerning the priestess of Ilithyia on the same island (*NGSL* 20 = *CGRN* 38, *c.* 400 BC) mentions "a portion, a honorific portion, and the tongue" to be "given from the sacrificial animal, so as to be placed in the *liknon*; these shall be consumed on the spot in the company of the women who performed the rites" (A lines 5–7: δίδοσθαι ἀπὸ τὸ ἰε|ρ[ὸ], ὥστε ἐς [τὸ] λ[ί]κνον ἐνθεῖ[ν]αι, | [μ]οῖραν καὶ γέρας καὶ γλῶσσαν· | ταῦτα δὲ ἀναλ[ί]σκεσθαι αὐτὸ μ|[ε]τὰ τῶν γυναικῶν τῶν π[ο]ι[η]σασ|ἐ[ων] τὰ ἱρά). In this case, the *liknon* could be another way of presenting "divine parts", as on a *trapeza* or on the hands and the knees of the statue. This may have been related to the profile of the goddess, since a *liknon* could be used as a cradle for babies (see comm. to *NGSL* 20, p. 309).

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the table were considered as the property of the recipient deity and belonged to the *hiera*, on the same semantic level as a "divine part" burnt on the altar.

In some cases, the food on the table was explicitly said to be given to the cult personnel.[39] In the same manner, in Chios, the *splanchna* placed "on hands" or "on knees" go to the priest. Therefore, the significance of these delicate parts of the animal, considered as *hiera* in some texts, can fluctuate between the determination of a sacrificial group around the altar strongly associated with the burning of the divine part upon it, and the determination of a privileged share of meat for privileged agents. In different ritual norms, the two aspects may seem to converge or diverge, as we will see. But, before addressing ritual norms, a few words about "evolution" and chronology are necessary.

"Deposition on a table" seems to be unattested in the sacrifices of epic poetry—except in the domestic sacrifice performed by Eumaios—and it has been suggested that it might have developed from the ideology of the Archaic banquet as a means for expressing status and hierarchies, perhaps under the influence of Near Eastern practices.[40] Whatever its origin, such a deposition is closely linked to the distribution of honorific portions to the cult personnel.[41] However, even if epic poetry does not mention priestly shares during sacrifices where a priest is involved, the formulaic expression "he was honoured by the people like a god" is applied to priests in Homer and probably refers to honorary portions given to them, wherever this *geras* is left during the sacrificial process and regardless of its composition.[42] But priests are not the only recipients of honorary shares: other officials or people honoured at various levels were likely to receive a *geras*, as we see in the case of Ajax honoured by Agamemnon in Book 1 of the *Iliad*.[43] The Homeric *taratalla*, the "third element", comprised of equal parts of meat, points to an ideal vision which, at first glance, does not seem necessarily compatible with a society sensitive to the hierarchy of honours. However, the epic context, even without *trapezomata*, implies honorific portions and thus could be closer than expected to the situation evidenced by some later inscriptions. Indeed, in documents referring to the distribution of meat, after the mention of honorary portions, the expression *ta alla krea*[44] points to a hierarchy that prevailed in the concrete life of Greek cities, even democratic ones.[45]

Concerning the divine part itself, fat-wrapped thighbones are a constant, from Homeric poetry at least to the time of Pausanias.[46] In post-Homeric evidence, however, variations in the composition of the "divine package" are attested and can refer to some increase of the part burnt on the altar (a process for which Scott Scullion coined the term "moirocaust"[47]). The *splanchna* are involved in these variations and some pieces of viscera were perhaps added to the thighbones and fat.[48] But the chronology of such changes is difficult to assess since the "canonical" description of epic poetry is a narrative construction giving uniformity to rituals which, as early as the Archaic period, may have been more diverse than is suggested by the poetic picture.

SPLANCHNA, *TRAPEZOMATA* AND PRIESTLY SHARES: "*LE CRU ET LE CUIT*"

In cities other than Athens, where they do not appear in the epigraphic evidence as priestly shares, *splanchna* are often given to priests, as attested by sales of priesthoods. In Karia and once in Kos a quarter share of viscera was regularly taken by the priest (τεταρτημορίδα σπλάγχνων). We can only speculate what happened to the other three quarters: were they partly burnt for the divinity or collectively consumed by "those who share the *splanchna*", as in Aristophanes, or both? Whatever the answer, they still belong to the more sacred parts of the slaughtered animal. The same question can be asked for a cult of Artemis on the island of Kos. Those who sacrifice place on the table for the goddess a cake and *splanchna* and the fourth part of this food is taken by the priestess.[49]

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[39] *CGRN* 163, lines 14–17 (Kos, 1st century BC); *CGRN* 188, lines 2–5 (Kos, 1st century BC): τιθέντω δὲ τοὶ θύοντε[ς] | ἐπὶ τὰν τράπεζαν τᾶι θεῶι πθόϊν καὶ σπλάγχνα· λαμ|βανείτω δὲ ἁ ἰέρεια καὶ ἀπὸ τῶν ἐπιτιθεμένων ἐπὶ | τὴν τράπεζαν τᾶι θεῶι τὰ τέταρτα μέρη.

[40] Ekroth 2011.

[41] In this perspective, the mirror effect between gods and priests in the sacrificial process is striking: Le Guen-Pollet 1991, 16–17; Pirenne-Delforge 2010, 134–135; Ekroth 2011, 36–38; Carbon 2017a, 176–177.

[42] Hom. *Il.* 5.78, 16.605. I do not see where, in *Iliad* 1, "Chryses receive[s] the *splanchna*" as claimed by Naiden 2013, 205, without a reference.

[43] The distribution of meat which follows the sacrifice performed by the Achaean king after the single combat between Hector and Ajax involves the award (γέραιρεν) of a continuous portion of the back of the animal: Hom. *Il.* 7.321–322.

[44] *CGRN* 86, A line 23 (Kos, mid-4th century BC); *CGRN* 92, line 16 (Athens, *c.* 335–330 BC). Later: *CGRN* 147, line 60 (Kos, second half of the 3rd century BC); *CGRN* 169, line 4 (Kallatis, 2nd century BC).

[45] On this point, see Ekroth 2008b.

[46] See Paus. 1.24.2.

[47] Scullion 2000. See Parker 2011, 144.

[48] A passage from the fables of Aesop (1 Hausrath & Hunger) is informative on this point: in "The eagle and the fox", an eagle flies down and grabs a piece of the viscera from the altar (ἀπὸ τοῦ βωμοῦ), which implies the presence of some part of the viscera among the divine part. See also directly below, for a kidney perhaps burnt for the god in Miletos.

[49] *CGRN* 42, lines 1–4 (Iasos, end of the 5th–early 4th century BC); *CGRN* 118, lines 10–14 (Halikarnassos, first half of the 3rd century BC); *CGRN* 119, lines 6–12 (Theangela, first half of the 3rd century BC); *CGRN* 104, lines 39–40 (Halikarnassos, first half of the 3rd century BC); *CGRN* 188, lines 2–5 (Kos, 1st century BC), with the text above *note 39*.

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The case of Miletos is revealed by a general regulation concerning sales of priesthood dating from *c.* 400 BC,[50] and then by the particular case of a contract of sale for the priestess of Dionysos more than a century later (275/4 BC). The general lines of the priestly perquisites in both texts are: "viscera, a kidney, the small intestine, the sacred portion, the tongue, and a leg cut at the hip-joint" (σπλάγχνα, νεφ[ρόν], σκολιόν, ἱερὰμ μοῖραν, γλῶσσαν, σκέλος εἰς κοτυληδόνα [τ]ετμημένον), with slight variations particularly depending on the species of the animal in the context of the general regulation.[51] The specification of a single kidney, which is normally included in the *splanchna*, suggests that another part of the viscera, with the other kidney, was consumed by the other participants or, perhaps, belonged to the part burnt in honour of the god. Still in Miletos, the famous inscription of the Molpoi (*c.* 200 BC) marks the distinction between "the roasting of *splanchna* and the boiling/cooking of meat" (ὄπτησις σπλάγχνων, κρεῶν ἕψησις) by the Onitadai, probably a gentilicial group.[52] Such cooking seems to imply direct consumption of the viscera by the participants. On the other hand, the same document stipulates that the herald has the right to obtain "by lot some viscera from each of the sacrificial animals."[53] The regulation may suggest that both aspects of the *splanchna* were involved: the sense of a common sacrificial group *and* the dimension of privilege for some sacrificial agents.[54] Another interesting case is offered by the inscription of the familial foundation of Epikteta on the island of Thera.[55] The monthly officials (*epimenioi*) in charge of the sacrifices have "to burn the sacred parts of the sacrificial animal which are traditional" (183–184 and 189–190: καρπωσεῖ τοῖς θεοῖς τά τε ἐκ τοῦ ἱερείου νενομισμένα ἱερά) and some other food. Then (194–199) we read:

> οἱ δὲ ἐπιμήν[ιοι] οἱ θύον|τες τὰς θυσίας ταύτας ἀποδω-σο[ῦ]ντι τῶι | κοινῶι τός τε ἐλλύτας πάντας κ[α]ὶ τῶν | σπλάγχνων τὰ ἡμίση· τὰ δὲ λοιπὰ [ἐ]ξοῦντι | αὐτοί· ὁ‹ι› δὲ ἀρτυτὴρ διελεῖ τὰ ἱερὰ τ[ο]ῖς παροῦ|σι.
>
> The *epimenioi* who are celebrating these sacrifices shall deliver to the association all the cakes and half of the viscera, while they shall keep the rest (of the viscera) for themselves; the administrator shall distribute the *hiera* between those who are present.

If the *hiera* mentioned in this passage are the small pieces of viscera distributed to the participants, this is a rare example of such a specification in our evidence.[56] It is perhaps likelier that *hiera* here includes the viscera as well as the rest of the meat, the "sacred" status of the *splanchna* being exceptionally extended to the parts simply called *krea* or *merides* elsewhere.[57]

Two final questions need to be considered before travelling, as promised, to Thessaly. The first is related to the fact that regulations almost never specify concretely when pieces of meat were left raw or cooked. If the Milesian inscription of the Molpoi exceptionally refers to roasting *splanchna* and boiling meat, this is only to remind the Onitadai of their obligations, in a generic manner. In other places and on other occasions, this was probably self-evident for the sacrificial group, but it also depended on whether a banquet was organized on site or not.[58] When the sacrifice was officially performed for a group, the *splanchna* may have been roasted and tasted, whether or not the rest of the meat was eaten on the spot. But what about honorific portions of viscera? In the same inscription of the Molpoi, a portion of *splanchna* is drawn by lot and given to the herald: were they already roasted when given? Does this mean that the herald is among the *splanchneuontes* thanks to his honorific portion? The specific reference to viscera to be roasted in the inscription allows for a positive answer to the

[50] *CGRN* 39.

[51] *CGRN* 138, lines 16–18. See also *LSAM* 52, A lines 4–7, with Carbon 2017a, 170–171.

[52] *CGRN* 201, line 34.

[53] *CGRN* 201, lines 43–44: τῶι κήρυκι … λάξις σπλάγχνων ἀπὸ θυῶν ἑκασ|τέων.

[54] At lines 6–8 of the same inscription, the *aisymnetes* of the Molpoi has to do something (the verb is unintelligible) to "the sacred portions or the viscera for those offering libations" (τὰ ἱερὰ ἢ σπλάγχνα σπείσοσι μολ-πῶν | αἰσυμνήτης). Then, "the *aisymnetes* and the companion consume (wine), once the libations have been poured from all kraters and they have sung paeans." The text does not refer to the sacrifice that may have preceded the command given to the *aisymnetes* concerning sacrificial parts designated as *hiera* or *splanchna*. The implications of the coordination ἤ ("or") between *hiera* and *splanchna* remain difficult to understand. What kind of alternative might this have been? These portions are not honorary shares since this part of the text focuses on ritual handling and obligations rather than on prerogatives. Moreover, the reference to libations and the singing of paeans coheres with the time of the "two first stages" of sacrifice—burning the divine part and roasting the *splanchna*. In this context, those "who are in charge of the libations" seem to assume duties in the handling of *hiera* and *splanchna* involved in these first phases of the ritual. But the alternative between the two elements—*hiera or splanchna*—remains obscure.

[55] *CGRN* 152 (225–175 BC).

[56] A Thasian inscription (*CGRN* 28, 450–425 BC), which is unfortunately heavily damaged, lists the viscera, in the genitive, among other portions in the accusative (lines 6–8: μοῖραν, κωλῆν, πλευρίον, σπλάγ-χνων, ἄρτον), probably referring to *trapezomata* as priestly prerogatives. In the middle of an unreadable passage at the end of the stone, one deciphers: "for the third time he libates and distributes sacred (portions)" (lines 11–12: τὸ τρίτον σπένδει καὶ ἱρὰ ἀ|πονέμει). Could this also have implied the distribution of the *splanchna*? As Lupu rightly remarked (*NGSL* 21, p. 321 and n. 20), *ta hiera* would have been expected.

[57] See the commentary on these lines in *CGRN* 152, with further bibliography.

[58] From Miletos too comes the famous reference to the ὠμοφάγιον thrown by the priestess in honour of Dionysos, probably a small piece of raw meat: *CGRN* 138, line 2 (275/4 BC).

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question in this case. Was this also the case for the *splanchna* displayed on *trapezai* in Erythrai or in Kos? Even more complicated to imagine is the way of displaying the *splanchna* "on the hands or knees" in Chios. Were they roasted or left raw? An indication could be given by Aristophanes' *Ploutos* depicting Hermes lamenting the end of sacrifices for the gods and the disappearance of the "warm *splanchna*" that he ate. This could be a comic reference to some *splanchna* included in the divine part, whether on the altar, on the *trapeza* (since the god also refers to the thigh) or on the statue, or perhaps a comic interpretation of the involvement of the god expected among the *splanchneuontes*.[59]

The second question concerns the verbs formed on the word *splanchna* (σπλαγχνεύειν, σπλαγχνίζειν), which are rarely attested in our epigraphic evidence. If the stone had been less damaged, one of the most informative inscriptions referring to viscera might have been a stele which is part of the sacrificial calendar of Kos and contains a passage relating to the sacrifice of a goat to the Charites.[60] Rudolf Herzog considered that this entry in the calendar referred to an oath sacrifice for the ephebes, but all the elements which support this hypothesis are restored.[61] *Splanchna* are mentioned three times in relation to the altar (of the Charites) and the stone "in the olive-trees", which are two places where various phases of the ritual are performed. Firstly, after the aspersion of the altar (thrice) and the stone (once) by the priestess (lines 7–8), *thyona* connected in some way with *splanchna* are made, but damage to the stone prevents us from understanding the link between the two. The *thuona* are perhaps portions of meat and viscera, or cakes in the form of meat and viscera; they are deposited on the altar (lines 9–11).[62] Secondly, at a place related to a mysterious figure called Asia (perhaps at the stone located among the olive-trees), first-fruits from the *splanchna* are to be offered (line 12: [ἀπα]ρξάμενοι καὶ τῶν σπλάγχνω[ν][63]). Thirdly, we find the verb σπλαγχνίζεται (line 14), which could refer to the eating of the viscera by the participants—even if the verb σπλαγχνεύειν might have been expected.[64] In terms of its attention to ritual precision, this part of the calendar is as exceptional as the sacrifice to Zeus Polieus in the month Batromios found in another part of the calendar; there, the level of detail is probably justified by the necessity of introducing a new ritual after the synoecism of the island or, at least, of re-organising existing rites.[65] The fact that the sacrifice to the Charites implies two different places could partially explain the necessity of describing in such detail the phase involving the deposition of parts and the treatment of the *splanchna*, regardless of whether this part of the calendar describes an oath-ritual or not. In this case too, it cannot be said if the viscera were cooked before deposition.

"Sacrificing according to the Greek norm" in Thessaly

Now, it is time to go to Thessaly, where a new document has shed light on all these unanswered questions, while opening up others. The so-called "Marmarini inscription", discovered in 2002 some 15 kilometers north-east of Larisa in Thessaly and published in 2015, provides precious details on sacrifice and purification. Dating to the first half of the 2nd century BC, it regulates rituals in a local sanctuary, probably related to an association, where Greek and non-Greek people had the opportunity of meeting and interacting in the cult of an anonymous goddess of Near Eastern origin.[66] A number of other deities were involved in the cult of this goddess. Except for the god Men who is attested elsewhere and for another case discussed immediately below, no other non-Greek deity mentioned in the text is known. On the contrary, Artemis, Apollo, Moira (in the singular), Helios, Pan are Greek names, but the latter is identi-

[59] Ar. *Plut.* 1130: σπλάγχνων τε θερμῶν, ὧν ἐγὼ κατήσθιον. See also Ar. *Av.* 518–519: ἵν' ὅταν θύων τις ἔπειτ' αὐτοῖς εἰς τὴν χεῖρ', ὡς νόμος ἐστίν, | τὰ σπλάγχνα διδῷ, τοῦ Διὸς αὐτοὶ πρότεροι τὰ σπλάγχνα λάβωσιν. In the Delian accounts, we find with some frequency the word ἐπισπλαγχνίδιος (in the plural, see *CGRN* 199, line 7), whose meaning remains mostly unclear.

[60] *CGRN* 86, C.

[61] *CGRN* 86, C, lines 13–15: … τοῦ λίθου τοῦ ἐν ταῖς ἐλα[ίαις | ἀψάμενοι ὄμνυντι …]. Cf. *IG* XII.4 275 *ad loc.*

[62] On this point, see the commentary at *CGRN* 86, C.

[63] For this restoration, see Jim 2014, 33–36, with previous bibliography.

[64] *LSJ*, *s.v.* σπλαγχνίζω; in the middle voice, the verb means "to feel compassion, pity" in Christian texts. The only epigraphic parallel for this sequence, with σπλαγχνεύω, is a fragmentary text from Aegina, dated to the 1st century AD and referring to acts of euergetism in connection with a gymnasium (*IG* IV 4, lines 5–7): someone "sacrificed the first-fruits to Hermes … and … tasted the viscera" ([ἀπ]αρχὴν ἐθυσίασεν τῷ Ἑρ[μήι - - - - καὶ - - ἐσ]πλάνχνευσεν), before organising a banquet (ἐθοίνησε). The verb is attested e.g. in Ar. *Av.* 984 (with schol.: σπλάγχνων μεταλαβεῖν); Theophr. *apud* Porph. *Abst.* 2.51; Strabo 3.3.6. An interesting fragment supposed to come from the so-called "*patria* of the Eupatrids" in Athens refers to a group of σπλαγχνεύοντες in the context of the purification of a suppliant (*FGrH* 356, F 1, quoted by Ath. 9.410a–b). In some cases, as in Strabo (3.3.6 and 7.2.3), σπλαγχνεύειν refers to the observation of the viscera for divinatory purposes.

[65] Pirenne-Delforge 1996, 208–213; Paul 2013, 162–163.

[66] *Editio princeps*: Decourt & Tziaphalias 2015, and then a reedition by Bouchon & Decourt 2017. Important analysis by Parker 2016, Carbon 2016 and Parker & Scullion 2016. See also *BE* 2016, nos. 291–293; 2017, nos. 291–292. The *CGRN* provides an updated edition of the text (no. 225) to which I refer here. Collaboration with Carbon on the online publication of this inscription allowed me to substantially improve the first analysis of the passage about the *Hellenikos nomos* that I presented at the Collège de France in March 2018. Between the editions of 2015 and of 2017, Decourt has changed the way of referring to the two sides of the stele: side A has become side II, and side B, side I. *CGRN* 225 maintains the layout of the first edition.

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ἐὰν δέ τις θύειν βούληται τῆι θεῶι Ἑλ-
B 35 ληνικῶι νόμωι, ἔξεστιν ὅ τι ἂμ βούληται πλὴν χοίρου· ἐπὶ δὲ τῆ[ι]
θυσίαι, φέρειν δεῖ ἐπὶ τὴν τράπεζαν τὰ ἐπιτιθέμενα χοίνικα λαγάνων,
ὄμορας χοίνικα, καὶ τριώβολον εἰς θησαυρὸν καὶ ἐλαίου ἐπὶ λύχνον κοτύ-
λην καὶ εἰς κρατῆρα οἴνου χοᾶ· ἀπὸ τοῦ ἱεροῦ, τὸ στῆθος ἑφθὸν ἐπὶ τὴν
B 40 τράπεζαν καὶ τὸ σκέλος ὠμὸν τῆι ἱερείαι· τὰ σπλάγχνα ἕψειν, ἧπαρ καὶ
πλεύμονα καὶ φρένας καὶ νεφρὸν ἀριστερὸν καὶ γλῶσσαν· τὸν δὲ δεξιὸν
νεφρὸν καὶ ἀκροκόλιον δεξιὸν καὶ καρδίαν καὶ ἐπίπλουν καὶ τὸ σκέλο[ς]
τὸ ἀπὸ τοῦ στήθους καὶ τῆς κέρκου τὸ νομιζόμενον εἰς ἱερὰ ἐπὶ τὸ πῦρ.
ταῦτα ποήσας καὶ ἀποθύσας, φερέτω ἄλλο ἱερεῖον οὗ ἂμ βούλη-
ται καὶ ἐσθιέτω ὁ βουλόμενος.

The Marmarini inscription.

fied as the god "whom the Syrians call Neirigles (or Neiriglen)"; this statement provides an explicit *interpretatio* and the divine name rendered in Greek appears to be that of Nergal.[67] The other gods bearing Greek names could also be, at least in some cases, *interpretationes*, which were left implicit as is more usual in inscriptions.[68] Another exceptional statement in this text is the reference to the possibility of "sacrificing to the goddess according to the Greek norm" (B 34–35: ἐὰν δέ τις θύειν βούληται τῆι θεῶι Ἑλ|ληνικῶι νόμωι) among many other sacrificial rituals. We will focus on this part of the text since the treatment of the viscera is exceptionally detailed.

HELLENIKOS NOMOS

The relevant passage of the inscription is given above, with translation below:[69]

> If anyone wishes to sacrifice to the goddess in the Hellenic custom, it is possible (to sacrifice) whatever one wants except swine (lit. a piglet). For the sacrifice, it is necessary to offer the things to be set on the table: a *choinix* of flat-breads, a *choinix* of sesame-honey-cake, and a three-obol into the money-box and a *kotyle* of oil for a lamp and for the krater a *chous* of wine; from the sacrificial animal, the breast cooked on the table and the leg raw for the priestess; cook the viscera: the liver, lung, diaphragm, left kidney, and tongue; and as sacred offerings on the fire: the right kidney, a right extremity, the heart, the omentum, the leg removed from the breast (i.e. a foreleg), and the customary part of the tail. Having done these things and completed the sacrifice, if he wants, let him offer another sacrificial animal, whichever he wishes, and eat it.

This "Greek *nomos*" seems to be implicitly contrasted with another norm, to which various other sacrifices present on the same side of the stele must be related. For instance, the generic *thyein* and its cognates, without any precision, probably implies a non-Greek ritual,[70] as do the references to the completion of a "full table" (for which a full-grown sheep is cooked whole),[71] the performance of an "all-day rite" for the goddess,[72] and various holocaust sacrifices.[73] The sense of

[67] For the identification of the god as Nergal, proposed during presentations at a conference at the Collège de France in January 2022, see now Zerhoch 2022.

[68] Decourt & Tziaphalias 2015, 26–32; Parker 2016; Parker & Scullion 2016, 217–218.

[69] *CGRN* 225, B lines 35–44 (with the translation from the *CGRN*). Among other modifications, two major changes of punctuation are made in the text of *CGRN* 225 compared to both editions by Decourt *et al.* The first is in line 36 where the ἀπὸ τοῦ ἱεροῦ is here considered as referring to the sacrificial animal from which the following parts are cut (even if one finds the more expected ἱερεῖον in B 43 and 61), and not to the sanctuary which the wine just mentioned would come from. The second is in line 37, where all interpreters until now have taken the dative τῆι ἱερείαι as the indirect object of the phrase τὰ σπλάγχνα ἕψειν. It makes better sense if τῆι ἱερείαι is the recipient of the raw leg mentioned just before. This coheres with the place of τῆι ἱερείαι in the other statements of priestly shares on the side A of the document (lines 34 and 35). The translation of words like *lagana* and *omora* is justified in the commentary on *CGRN* 225.

[70] On side B, some sacrifices indicated by the verb μεταθύειν or ἐπιθύειν follow a purification with the offering of another animal: lines 3–4, μεταθύειν ἄλλον ἀλέκτορα τέλεον; lines 14–15, μεταθύειν | δὲ σκέλος; lines 30–31: ἐπιθυσάτω ἐπὶ τοῦ τῆς Φυλακῆς βωμοῦ ὄρνιθα θή|λειαν ἢ ἀποπυρίδα, μνᾶν κρεῶν … Other sacrifices on the same side are simply denoted with the verb θύειν and the name of the animal: lines 23–25: θύειν ἀλέκτορας λευκούς … καὶ ἐὰν ἀρ|νία θ<έ>λῃ, τὸν αὐτὸν τρόπον; line 53: ἐὰν δὲ ὄρνιθά τις θύηι ἢ χῆνα …; lines 75–76: ὅταν τις τῆι θεῶι ἀλεκτορίδα θύηι, ἐπὶ τὸν τῆς Μοίρας | βωμόν. The exact manipulation of these various animals remains unknown and *thyein* need not systematically imply the combustion of some part of the animal.

[71] B lines 44–48. See just below.

[72] B lines 48–50: ἐάν τις πανημερί|σαι βούληται τῆι θεῶι, ἄριστον φερόμενος ὅτι ἂν βούληται, πλὴν | χοιρέων κρεῶν, καὶ ἐπὶ λύχνον ἐλ[αί]ου ἡμικοτύλιον. Bringing meat to the sanctuary for a ritual is also attested in Delos in the 2nd century BC in the Near Eastern cult of Zeus Ourios and Astarte Palaistine Aphrodite Ourania: *CGRN* 171, line 7.

[73] ὁλοκαυτῆσαι: B lines 65–69 (a full-grown ram or a male lamb), B lines 70–73 (a goose), B lines 73–74 (a *trubba* or a quail). Holocausts are attested in Greek procedures, but their rarity and the particular identity of the animals burnt here suggest that this performance belongs to

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thyein is more open for debate in the case of the sacrifice of a bovine mentioned five paragraphs after the "Greek *nomos*", sandwiched between the sacrifice of a fowl or a goose and sacrifices in the context of Near Eastern festivals, but an in-depth analysis of this passage would exceed the limits of the present discussion.[74]

The most interesting observation for our discussion is the association of the *Hellenikos nomos* with the mention of *splanchna* and of specific parts of the sacrificial animal burned in the fire. Both are unique in the inscription, although many ritual processes are evoked using *thyein* and its compounds. But in the non-Greek rituals labelled as *thyein*, deposition on a table is the main trend and does not necessarily imply combustion (except, of course, in the case of holocaustic sacrifices). Before addressing these "Greek" peculiarities, the perquisites for the priestess must be briefly considered.

PRIESTLY SHARES

In the *Hellenikos nomos*, the priestess receives a raw leg. The only point of internal comparison is on side A, where the regulation stipulates what kind of sacrifice has to be done for the ritual of "lifting the offering tray" (lines 30–31: σκάφην ἐάν | τις αἴρηι). A mature sheep, male or female, has to be sacrificed, "close to Moira" (αἴρειν παρὰ Μοίραι καὶ θύειν πρόβατον τέλεον). Supplementary offerings are to be brought, as usual (lines 32–33). Then, some parts are to be extracted "as for the table-filling ritual" (lines 33–34: τὰ δὲ ἐξαιρούμενα κάθαπερ τῆι τραπεζο|πλησίαι), "but the leg is removed raw along with the fleece for the priestess" (line 34: τὸ δὲ σκέλος ὠμὸν ἀφαιρεῖν καὶ τὸ κοίδιον τῆι ἱερείαι). The meat must be eaten on the spot and non-initiates cannot taste it. Finally comes a reminder that "the fleeces (are) for the priestess" (line 35: τὰ κοίδια τῆι ἱερείαι). For the second "lifting of the offering tray", it is stipulated that one has to "remove the sacred parts as for the first" (lines 37–38: τὰ ἱερὰ ἐξαιρεῖν ὡσαύτως ὥσ|περ τῆς πρώτης).

The reference to "the extracted parts", for the first "lifting", and to "the sacred parts" is puzzling here since the point of comparison given by the text is the ritual of "the table-filling", for which the mature sheep, male or female, has to be "cooked whole" (line 46: ἕψειν δὲ ὅλον). The parallel seems to be based on a confusion, since the only sacrifice where *hiera* are explicitly extracted is the "Greek" ritual, described just before the *trapezoplesia* on side B, with the priestly share also made up of the raw leg.[75] Be that as it may, the verb ἕψειν brings us back to the *splanchna*.

COOKING THE *SPLANCHNA* AND BURNING THE DIVINE PART: A "GREEK" SPECIFICITY

The verb generally understood as "to boil" is mentioned only twice in this long regulation: concerning the sheep of the *trapezoplesia*, just mentioned, and the *splanchna* manipulated in the "Greek" sacrifice. The adjective ἑφθός can be added, qualifying in the same context the breast to be placed on the table. As explicitly described in the Molpoi inscription, as well as in various literary texts seen above, the viscera are generally roasted and not boiled. In the same manner, the "boiling" of the entire carcass of the animal for the *trapezoplesia* is difficult to imagine.[76] A kind of "*méchoui*", or roasting an animal on a spit without cutting it up, is more expected, since this is the easiest way of cooking it "whole" in the strictest sense of the adjective. Accordingly, the two occurrences of ἕψειν must be translated by "cooking" in general, and refer to roasting.[77] This is also probably the case for the στῆθος ἑφθόν, the "cooked" breast.

The "Greek way" of sacrificing described in the text from Marmarini therefore includes the "three elements" identified in the ritual process called *thysia*: (1) the divine share, burned in the fire of the altar and complemented by a deposition of meat on a table, which for once is explicitly characterized as cooked; (2) the *splanchna* to be cooked; and (3) the rest of the meat, which is mostly implicit here, but we are told that the leg to be taken away by the priestess is raw. The mention of the priestly share also gives to this part of the sacrificial rules a "Greek" flavour, well attested in epigraphic evidence about sacrifice. For the first time in our evidence, we are explicitly told: (1) what must be put into the fire as *hiera* and (2) what

non-Greek practice as well. On all these Near Eastern aspects of the offerings, see Parker & Scullion 2016, 220–228; Ekroth 2018. For holocausts, see also Ekroth in this volume, *Chapter 12*.

[74] According to Parker & Scullion 2016, 242–247, the *Hellenikos nomos* "distinguishes between victims seen as typical of Greek sacrifice and those of a different culture, or at any rate of smaller size" (243) and so "the distinction between birds (and lambs) and larger animals is probably all there is to the "Greekness" of the Greek rite (245). In my view, the size of the animal has no bearing on the "Greekness" of the ritual, but the way of handling it is what matters. For example, a full-grown sheep can be the object of a ritual which is clearly non-Greek (cf. the "table-filling" ritual on lines B lines 45–49, or the full-grown sheep "sacrificed" for the ritual of "lifting the offering tray", on lines A lines 30–31). For more discussion on this debate, see the commentary on these lines (B lines 57–60) in *CGRN* 225.

[75] Perhaps this last ritual can be considered as a supplement to the sacrifice "*à la grecque*", when one brings "another animal" to be eaten, just before the mention of the *trapezoplesia*.

[76] In the case of the ram offered to Aleximachos in Amorgos, the animal is clearly cut up into anatomical portions which are boiled or cooked "whole" and placed before his statue: *IG* XII.7 515 = *LSS* 61, lines 77–78 (Aigiale, end of the 2nd century BC).

[77] Chantraine, *DELG*, 394, s.v. ἕψω: "*Ces termes se sont substitués à la famille de πέσσειν pour exprimer l'idée de « cuire »*."

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the *splanchna* to be roasted are. Other occurrences of the word, in the ritual norms mentioned above, are always generic and never include a description of the *splanchna*.

There is a good reason for this. Contrary to hundreds of epigraphic ritual norms issued by Greek people in which the Greek way of performing rituals can be postulated as a shared background against which local specificities are more or less detailed, the shared background of the Marmarini inscription is non-Greek, which explains why the verb *thyein* can be used with no other specification and the "Greek" way of sacrificing becomes a peculiarity which needs to be detailed. However, matters are not so simple, because the so-called "Greek" perspective in the region of Larisa could be a "Thessalian" way of sacrificing or even one specific to the city in which the sanctuary of the Near Eastern goddess was located. Unfortunately, Thessaly is a "virtual desert"[78] as far as ritual norms are concerned and points of comparison are lacking. In all likelihood, the *nomos* is said to be "Greek", and not just "Thessalian", precisely because the Greek reference offers the most comprehensive contrast with rituals coming from abroad. Whether a Thessalian custom is present in this norm or not, the Marmarini inscription magnificently confirms that a "Greek" sacrificial framework is not merely the ideal vision of historians of Greek religion, in spite of the local variations attested by the epigraphic evidence.[79] As we saw above, the division of the animal in three parts and their respective, specific handling is a recurring trend in Greek *thysia* everywhere. This is exactly what is described in the prescriptions of the "mixed" community involved in the cult of a Levantine goddess when a "Greek" ritual is performed. Even in the case of the divine portion, which at first sight seems to be larger than expected,[80] one finds trends known elsewhere: leg and omentum, perhaps referring to the "package" made of fat-wrapped bones; the tail; a piece from the extremities (like the small pieces of raw meat in Homer?). The right kidney is a part of the *splanchna* which is burned, perhaps paralleling what may have been practiced in Miletos.[81] The heart is rarely mentioned in our ritual norms, but in documents regulating sacrifices in Ephesos and in Smyrna in the 2nd century AD, it appears to be burned on the altar.[82] In parallel to the burning of these animal parts, consuming the "cooked" *splanchna* tends to build a group of *splanchneuontes* "*à la grecque*", in the sanctuary of this Syrian goddess.

A text as complex as the inscription found in Marmarini will contribute to wider discussion among researchers on Greek and Near Eastern modes of sacrifice. In a study focused on the place and the role of the *splanchna* in the process, this extraordinary ritual norm attests to the need to refer explicitly to these animal parts when a sacrifice is supposed to be Greek, as well as to define the part to be burnt on the altar. What little we know of Near Eastern sacrifices (and "Near East" is certainly too broad a category in this respect) focuses on the cooking of food and deposition in many cases: in the Persian way of "sacrificing" without flaming altars described by Herodotus,[83] in the Hittite practice,[84] or in the Mesopotamian daily service for the gods.[85] The reference to a "Greek way of sacrificing" finds some support in this sense and the use of *thyein* in the Marmarini text could point, in many cases, to a generic "animal offering to a deity", without necessarily implying the combustion of a part for the divine recipient when the ritual is not Greek.

As far as comparison is concerned, a brief glance at a Roman ritual practice mentioned by a Greek author will give us the opportunity to add a last consideration to the analysis of the "Greek way of sacrificing" and the *splanchna*.

[78] Cf. Parker 2018, 75.

[79] A conclusion also reached by Parker 2018, 80, from a broader perspective.

[80] This is the interpretation of Parker & Scullion 2016, 246, who consider that we are confronted with a "moirocaust" in this case.

[81] See above with *note 51*.

[82] *I.Ephesos* 10 = *LSS* 121, lines 5–12: … ἱερεῖα | προσάγοντα τοῖς θεοῖς νενομισμέ|ναις ἡμέραις τὸν ἀρι<θμ>ὸν τξε′, καρδιου[ρ]|γούμενα μὲν καὶ ἐκμηριζόμενα ρϙ′, κα|τατελισκόμενα δὲ ροε′, ἐξ οἰκείας δυ|νάμεως, περιηγουμένου καὶ διδάσκοντος | αὐτὸν τοῦ δημοτελοῦς ἱεροφάντου καθό|τι ἕκατον τοῖς θεοῖς νόμιμόν ἐστιν, "(the *prytanis*) leading the sacrificial animals to the gods on the usual days, numbering 365; 190 whose hearts have been removed and their thighs extracted, 175 offered without being cut, at his own expense, the public *hierophant* instructing him and teaching him how each custom must be performed for the gods." *LSAM* 84, lines 12–13: μηδ' ἐν Βακχείοις ᾠὸν ποτὶ δαῖτα τ[ίθεσθαι,] | καὶ κραδίην καρποῦν ἱεροῖς βωμοῖς [- - - -], where Sokolowski considered it was forbidden to burn the heart on the altars but this would imply a negative statement lost in the gap at the end of line 13. In any case, these two texts attest that the heart could be part of the divine portion, at least in Roman Imperial Ionia.

[83] Hdt. 1.131.

[84] Mouton 2017, 242: "The key gesture of Hittite animal sacrifice is clearly the placement of the sacrificial meat cuts on the divine table." However, this interesting paper shows different cooking techniques depending on the nature of the meat cuts. The liver and heart are roasted and not cooked in a pot, as other parts are. For other variations involving burning in the Hittite material, see Mouton in this volume, *Chapter 13*.

[85] Abush 2002, 43: "The central act of the daily cult is not sacrifice in the sense of giving the food over to a fire which consumes it, nor is it acts of slaughter and pouring out of blood. Food was placed before the god and consumed by him through that mysterious act that characterizes Babylonian religiosity."

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The *ritus Graecus* by Dionysius of Halikarnassos

According to John Scheid, the Roman sacrifice *Graeco ritu* is "a typically Roman way of honouring the gods."[86] I have no intention of contesting the analysis of one of the best scholars in the field of ancient Roman religion. My point here is to identify what elements the Greek author Dionysius of Halikarnassos clearly emphasizes as "Greek" in the sacrifices offered to Hercules at the *Ara Maxima*, which are said to be performed *Graeco ritu*.[87]

According to Dionysius, Hercules was considered a god for the first time in Italy and he asked the inhabitants to offer him an annual sacrifice. To be sure to get what he wanted to receive, he himself taught two distinguished families, the Potitii and the Pinarii, whose descendants had long been in charge of this sacrifice, "to perform the ritual according to Greek customs" (ἀγιστεύοντες δὲ τὴν ἱερουργίαν ἔθεσιν Ἑλληνικοῖς). Initially, the ceremonies had to be performed equally by both families but, at the first sacrifice, the Pinarii arrived too late, "when the *splanchna* had already been eaten" (ἐσπλαγχνευμένων ἤδη τῶν ἱερῶν). Accordingly, the Potitii presided at the sacrifice, "taking the first-fruits of the burnt-offerings" (τῶν ἐμπύρων ἀπαρχομένων), while the Pinarii "were excluded from tasting the viscera" (Πιναρίων δὲ σπλάγχνων τε μετουσίας εἰργομένων).[88] Whether the *splanchna* were effectively eaten by the participants or burnt for the gods in sacrifices to Hercules, as in the "classical" Roman sacrifice,[89] the important point for my topic is the emphasis put by Dionysius on this aspect of the "Greek" sacrifice for the hero/god. Partaking of the *splanchna* is clearly considered especially "Greek" in a Roman sacrificial ceremony, which supports our analysis of the "Greek way of sacrificing" in the Marmarini text.[90]

When I first read the expression θύειν … ἑλληνικῶι νόμωι in the inscription found at Marmarini, I considered this testimony to be the validation of a strong conviction: the notion of "Greek religion", in the singular, was indeed relevant. Referring to *Religions of the Greeks* in the plural was not mandatory.[91] Despite the political fragmentation of the Greek world, something typically "Greek" could emerge from this religious system, whether in the names of many gods or in the ritual framework of sacrifice as regulated by dozens of ritual norms.

This consideration does not invalidate the obvious observation of the great variety of local traditions, whether in the structure of divine local "assemblages" and the choice of the gods' cult-titles, in the establishment of festivals or in the specific elaboration of local calendars. But the Greek themselves considered that an underlying unity did exist in their way of recognising supra-human beings and interacting with them. As Fritz Graf remarked some years ago, there was "a basic linguistic unity of Greekness despite the many local dialects", and "the dialectic of a common Hellenic language and its multiple dialectal expressions might be a useful model on which to understand the tension between Panhellenic and local religion."[92] It is no coincidence that the expression "according to the Greek norm" appears in a document issued by a mixed community of Greeks and non-Greeks. The effect of contrast is obvious and it gives us the rare opportunity to reach an *emic* definition of a *thysia*: it involves burning parts of a slaughtered animal on an altar for the recipient deity and sharing the roasted *splanchna* within the sacrificing group. The point of anchor of the text, Hellenistic Thessaly, attests to the validity of the definition.

VINCIANE PIRENNE-DELFORGE
Collège de France, Paris
vinciane.pirenne@college-de-france.fr

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[86] Scheid 1995 (the quotation is the subtitle of this article: the French version is in 2005, 87–122) and 1998.
[87] Dion. Hal. 1.30.3–4.
[88] The *Hellenika ethe* are once more associated to the fact of "sacrificing the burnt first-offerings" in 6.1.4 (τὰς ἐμπύρους ἀπαρχὰς ἔθυον Ἑλληνικοῖς ἔθεσιν).
[89] On this question, see Scheid 2005, 105–107.
[90] See other examples of the fundamental importance of *splanchna* in a Greek sacrificial context provided by Bednarek here, *Chapter 9*.
[91] As Price 1999, for example. See the conclusion of Parker 2018, with which I absolutely agree. Cf. also Pirenne-Delforge 2020, *passim*.
[92] Graf 2010, 57.

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JENNIFER LARSON

11. Blood and ritual killing: Exploring intuitive models

Abstract

Greek *sphagia* ("blood victims") are the objects of a category of ritual killing which emphasizes the shedding of blood. Using cognitive theory, I will attempt to identify the conceptual models that allow practitioners of ritual *sphage* to infer that their methods are efficacious. In the agentive model of ritual *sphage*, blood is used to facilitate interaction or reciprocity with an intentional agent (typically a god or hero). In the mechanistic model, blood is used to achieve a result automatically, through the Laws of Similarity and/or Contact (that is, through sympathetic magic). Dual activation of agentive and mechanistic models occurred in Greek rituals of *sphage* on the battle-line, in oaths, and in some types of purification. In Greek culture, mechanistic models were intuitive and implicit, with the partial exception of oaths, where the mechanistic analogy was sometimes stated as part of the ritual. These two factors (dual activation and the implicitness of mechanistic models) have made it more difficult for scholars to recognize the extensive role of sympathetic magic in rituals of *sphage*, and the structural similarities among rituals. Battle-line *sphagia*, oath *sphagia*, and purificatory bisections, for example, all rely on magical action per the Law of Similarity.

Keywords: Greek animal sacrifice, agentive model, mechanistic model, Law of Similarity, Law of Contact, blood, ritual killing (*sphage*), blood victims (*sphagia*), battle-sacrifice, oath-sacrifice, purification

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In this paper I will explore Greek rituals involving *sphagia* ("blood victims"), animals killed in order to shed blood.[1] I will attempt to identify the conceptual models that allow practitioners of rituals of *sphage* to infer that their methods are efficacious. I am applying a cognitive approach, according to which certain ritual techniques are predicated on a substrate of intuitive beliefs, those which are held without conscious reflection. My analysis is drawn from dual process theory, which distinguishes between intuitive cognition (fast, unconscious, effortless) and reflective cognition (slow, conscious, effortful).[2] Intuitive beliefs may be naturally-developing results of our interaction with the environment (as in the belief that objects thrown in the air will fall down again) or they may be culturally learned, yet so ingrained as to require no conscious effort (as in the inference that the doorbell ringing means someone is at the door). The origin of still other intuitive beliefs is somewhere in between. Children must be taught to wash, yet parents do not need to explain how water acts to remove dirt. This inference on the child's part results spontaneously from direct perception, and becomes part of the intuitive repertoire. Interestingly, however, it seems to be a common inference worldwide that invisible forms of dirt or contamination can also be removed by washing. In this case, the need to "wash off" the pollution is taught, but perceptual confirmation is lacking. Why do people believe that such measures are effective? The answer cannot be simply that they accept an arbitrary social convention, for then we ought to find cultures cleansing pollution by any number of arbitrary methods, such as standing perfectly still for an hour. Instead, removing invisible contaminants with water is plausible and satisfying because the analogy with the removal of visible dirt has intuitive force.

[1] On the concept and vocabulary of *sphagia* see, in addition to the sources below, Rudhardt 1992, 272–288. I use the phrase "rituals of *sphage*" to denote an etic category of rituals yielding *sphagia*. In this paper, use of the word "victim" implies only the object of ritual killing, not the object of a sacrificial action or offering.

[2] Intuitive beliefs held unconsciously can be made explicit; such beliefs often seem glaringly obvious (e.g., upsetting a glass will cause liquid contents to spill). On dual process theory, intuitive cognition and the intuitive/reflective distinction, see e.g. Sperber 1997; Gilovich *et al.* 2002; Kahneman 2011; Evans & Stanovich 2013. Discussion in relation to Greek religion: Larson 2016, 11–14.

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James G. Frazer collected instances of beliefs like this, which are plausible and satisfying despite their lack of validity. Despite the methodological flaws of *The golden bough*, no one has since given as cogent a description of the intuitive beliefs that make magic seem plausible to people around the world and in every age. Frazer posited two so-called "laws" of sympathetic magic.[3] The first is the Law of Similarity, that like produces like, and that one can bring about a desired effect by representing it, either in concrete fashion or with words. Sticking a pin into a doll in order to attack a person is a familiar example. The second law is the Law of Contact or Contagion, that things which have been in contact remain connected. Thus the operation of sticking a pin in a doll will be more efficacious if the doll contains hair from the person being attacked. A growing body of research in cognitive psychology suggests that Similarity and Contact operate extraculturally as biases in normal human cognition, including that of educated adults.[4] Cognitive biases operate intuitively and often below the level of conscious awareness, so that relationships of analogy and contagion are often but not necessarily always recognized by practitioners. Sympathetic magic could therefore function in ancient rituals without being classified as part of the emic categories of *goeteia*, *mageia*, or the like. Indeed, as I will argue, sympathetic magic could function to increase ritual efficacy without being recognized at all. People felt strongly that it worked, but they did not know why.

Sympathetic magic corresponds to one of the two fundamental cognitive models of causation. The first is that events happen through impersonal mechanistic processes or laws. Water runs downhill automatically, without the need for a person/agent to make this happen. Frazer's magical "laws" fall into this category. The second fundamental model of causal thinking is intentional agency: an event happens because someone (an agent) forms an intention and acts on it. As we will see, representations of *sphagia* may draw on one or (more often) both of these models, but it is important to distinguish the agentive and non-agentive (= impersonal mechanistic) models because there seems to be ample evidence that they are generated separately in the mind, using different cognitive tools.[5] The logical conflict which results when these models are deployed simultaneously was rarely recognized by ancients, though it has caused many problems for modern interpreters. For example, anthropologists struggle to explain how people can simultaneously attribute an illness to both natural causes (non-agentive) and witchcraft (agentive), without perceiving the logical conflict as a problem.[6] In the rest of the paper, I will apply the agentive/mechanistic distinction as a heuristic tool for understanding the intuitive bases of a variety of blood rituals. First I will provide some examples of the two causal models in relation to blood victims, and then I will discuss each of the examples in more detail.

In the agentive model of ritual *sphage*, blood is used to facilitate interaction or reciprocity with an intentional agent. This model of causation draws upon our systems for social cognition, especially theory of mind, that is, the attribution of beliefs, desires and intentions to entities in the environment.[7] In these cases the ritual actors are attempting to discern and/or influence the mental state of a superhuman agent. Examples include offerings (such as when blood is given to a god, hero, the dead, the rivers or the winds), and divination (such as when signs indicating divine disposition are observed from the flow of blood or other features of *sphagia*).

In the mechanistic model of ritual *sphage*, blood is used to achieve a result automatically, through the Laws of Similarity and/or Contact. In this model of causation, ritual efficacy does not depend on the mental state of another intentional agent, but on the expectation that impersonal forces function in the environment according to fixed laws or patterns. Examples include the performative uses of blood on the battle-line and in oath rituals, and the use of blood as an instrument in purification and aversion rituals.[8]

Blood in offerings

The use of blood in offerings has been ably addressed by Gunnel Ekroth in her 2002 book, so I will merely summarize and make a few additional observations.[9] In standard alimentary *thysia*, a small amount of blood was splashed or poured on the

[3] Frazer 1922, 11. Discussion: Larson 2016, 132–135, 167, n. 23–24. Frankfurter (2019, 672–673) is hardly alone in warning against the term (and concept) of sympathetic magic due to its Frazerian origins, but it is possible, in my view at least, to glean what is useful from Frazer (the demonstration of extracultural patterns of human thought) while discarding what is not (his flawed model of cultural evolution).

[4] Magical laws as elements of normal cognition: Rozin *et al.* 1986; 1990; Nemeroff & Rozin 2000; Gilovich & Savitsky 2002; Rozin & Nemeroff 2002. Discussion: Larson 2016, 132–142.

[5] Generated separately: e.g. Gergely *et al.* 1995; Csibra *et al.* 1999; Woodward *et al.* 2001; Blakemore *et al.* 2003.

[6] According to Banerjee & Bloom (2014, 289 with further bibliography on 292), simultaneous attribution of logically conflicting causal models is very common.

[7] For introductions to theory of mind see Baron-Cohen 1997; Wellman 2014.

[8] As used here, "performative" applies to rituals of *sphage* in which killing or bloodshed itself is the focus of the ritual for analogical purposes. The killing of piglets in purificatory contexts, for example, is usually done in order to obtain blood for tracing a circuit or sprinkling on a person. The piglet's death is incidental; the animal serves as a convenient and economical source of blood. In performative ritual contexts, however, the animal's death is analogically linked to the similar fate of an oathbreaker or enemy.

[9] Ekroth 2002, 135–136, 171–177, 242–276 and 305–306, with discussion of oaths and pre-battle rituals.

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Table 1. Degrees of intuitive directness in methods for delivering blood to a recipient.

Most indirect	Intermediate	Most direct
Collecting in vessel, then pouring onto altar, into pit, on tomb surface, etc.	Slaughtering so that blood flows straight onto altar, pit, tomb. Collecting blood, then pouring through tube into tomb	Slaughtering into water, where the river, spring, etc. is the recipient (e.g. σφαγιάζεσθαι εἰς ποταμόν, Xen. *Anab*. 4.3.17)

altar, while the majority was processed for consumption, often as blood sausage. This form of sacrifice can be contrasted with those (signaled by the verbs *sphazein*, *entemnein* and sometimes *enagizein*) in which most or all of the blood was offered to a superhuman being, typically one with some connection to the underworld and/or perceived as hostile. These rites might or might not include an alimentary element, depending on the recipient and context.

When blood is used as an offering, it is manipulated in concrete ways which facilitate contact with a superhuman recipient. Altars are a standard point of contact, but a pit is better for recipients originating underground, while pouring blood directly onto, or better yet, into a tomb yields the intuition that the dead occupant will be aware of the offering. We also observe that it is preferable for blood to flow directly from the animal's body to the point of reception, although practical considerations, such as the size of the animal, or the desire to collect blood for consumption, may interfere with this goal. Methods for delivering blood to a recipient can be classified based on the degree of intuitive directness (*Table 1*).

The recipients of blood offerings were a varied group. There is evidence that the dead were represented as dry and thirsty, and thus especially receptive to libations, including blood.[10] Both propitiatory and mechanistic rituals of *sphage* are attested as techniques for dealing with harmful winds, which seem to have been classed as hostile spirits.[11] Why rivers and other bodies of water should receive *sphagia* is less clear since they are neither explicitly associated with the dead nor overtly hostile. Yet rivers are a special case with respect to the mental model of offering: unlike most gods, a river deity was present in tangible form and could receive the blood directly and visibly, as the liquids mingled. Like the throwing of coins or other gifts into water, the concreteness of this procedure was intuitively satisfying. Most of our evidence for *sphagia* offered to rivers comes from literary descriptions of armies on campaign, which suggest that crossing a river was represented as an occasion requiring both propitiation of the god and some sign of his consent. As a result, the divinatory aspect of such *sphagia* was especially important.[12] But there is also epigraphic evidence of an annual rite for Acheloios in Hellenistic Mykonos, where three animals, a full grown sheep and two lambs, were slaughtered at the altar, while an additional eight lambs had their throats cut so that the blood would flow into the water. This suggests a double procedure, of propitiatory *sphagia* considered desirable for rivers (the eight lambs), and alimentary sacrifice to fit the festival context (the sheep and two lambs).[13]

These varied uses of blood are all predicated on the inference of a mind at the other end of the ritual. As Fred Naiden has emphasized, the efficacy of any form of offering depends on whether the recipient accepts it, something which can never be assumed in Greek culture, even if the rites are properly performed.[14] Correct performance may be a necessary condition for success, but it is not sufficient. In situations where the mechanistic model is activated, blood is shed performatively or used as an instrument to achieve various ends, and efficacy depends on whether the ritual is properly performed. Even if there is a mind at the other end of a magical procedure, its mental state will be irrelevant to success unless an agentive model is also activated. As we will see, Greek rituals of *sphage* quite often combine agentive and mechanistic models, although the latter normally remain implicit (that is, Greek practitioners would readily associate gods and ritual killing of animals, but the operation of the Laws of Contact and Similarity in ritual killing was only rarely acknowledged). Despite the difficulty of teasing these elements apart in rituals, the ef-

[10] On the dryness and thirstiness of the dead, see Larson 2016, 253 with n. 13.

[11] On winds: Xen. *An*. 4.5.4 (the seer *sphagiazetai* to the wind that is freezing the men and it abates); Paus. 2.12.1 (the priest at Titane *thuei* at an altar but also "performs secret rites into four *bothroi* to soothe the wildness of the winds), 2.34.2 (at Methana they circumambulate the vineyards with a bisected rooster to avert the wind Lips).

[12] Jameson (2014, 105) writes, "The *sphagia* at rivers were, in effect, a more limited and concentrated version of normal sacrifice, dictated by the circumstances, the aims and the nature of the supernatural force addressed." Divinatory element: Aesch. *Sept*. 377–379 (the *mantis* does not allow Tydeus to ford the Ismenos because the *sphagia* are not *kala*), Hdt. 6.76.1–2 (Kleomenes slaughtered [*sphagiazesthai*] for the Erasinos but did not receive favorable signs). Cf. Eur. *Heracl*. 822, where the *manteis* release *ourion phonon* from the cattle's necks.

[13] Mykonos: *LSCG* 96, lines 35–37, *c*. 200 BC, a decree concerning the cult calendar on the occasion of synoecism. Cf. Jameson (2014, 104), who takes (as I do) *eis potamon* to mean *sphattetai eis potamon*, not Sokolowski's "*jeté dans le fleuve*."

[14] Rejection of offerings: Naiden 2013, 131–182 and 331–333. Although acceptance could never be assumed, certain rituals were set up to favor a positive outcome. For example, tails placed on the sacrificial fire predictably curl upwards, giving a "good sign": van Straten 1995, 118–133 and 190–191 and see now Morton in this volume, *Chapter 2*.

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fort is methodologically justified, because cognitively speaking, nothing prevents the simultaneous activation of agentive and non-agentive models.

Battle-line *sphagia*: offerings and performative killing

Sphagia at the point of battle have generated debate because they draw on both agentive and mechanistic models. Michael Jameson devoted an article to the subject of Archaic and Classical sacrifice before battle, in which he distinguished between the preliminary *hiera* in camp or on the road, which followed the model of *thysia* with divination, and the hastier *sphagia* which happened when armies were within sight of each other and on the point of engagement.[15] At such moments, Jameson doubts that a *mantis* (a seer) had time to extract and examine the viscera for signs. Instead, he suggests two quicker methods: observation of the way the animal falls when its throat is cut, and observation of the way the blood spurts or flows onto the earth. He favors the latter, because representations of this procedure show the victim firmly held by the *mantis* or warrior as he prepares to pierce its throat.[16] William Kendrick Pritchett strongly plays down the divinatory aspect of the battle-line *sphagia*, arguing that they were strictly propitiatory, for once at the battle line, generals were committed to action regardless of the omens. His exclusion of divination cannot stand, however, for there are unambiguous examples in Xenophon and Herodotus of signs read from battle-line *sphagia*.[17]

The Spartans normally designated Artemis Agrotera as the recipient of their battle-line *sphagia*, but there is a significant silence on the matter of recipients in most non-Spartan cases, and Artemis is "the only sure historical example of a specific addressee."[18] Whereas the process of divination does not depend on knowing the specific divine source of a given sign, the act of presenting an offering normally does assume a specific recipient, or at the very least, a general category of recipients, such as "the underworld gods," or "all the gods". Thus, the lack of stated recipients has raised the question of whether these ritual killings were mentally represented as offerings.

An alternative or complementary interpretation is that this bloodletting can be understood as a performative, magical operation, in which the piercing of the victim's throat inaugurates and enacts the bloodshed which the army hopes its enemies will suffer. The use of a sword rather than a knife to pierce the throat, as shown in a 5th-century BC kylix in Cleveland, supports this interpretation.[19] The moment of sacrificial slaughter is rarely depicted on vases, but according to Folkert van Straten, extant kill scenes with animals seem restricted to battle-line *sphagia*, suggesting that in this ritual, the killing itself was the focus of interest.[20] Likewise it was desirable that the assembled armies see the ritual performed, or at least view the carcasses.[21] Dual causal models might explain the tendency to employ two types of ritual killing: *hiera* were for offerings and divination, while performative *sphagia* worked mechanistically and must be activated immediately before the battle for full effect. But because the inference of magical efficacy was intuitive and implicit rather than explicitly stated, this ritual action easily lent itself to divinatory and propitiatory interpretation by participants and by authors describing the ritual.[22]

[15] Jameson 2014, 98–106 (originally published as Jameson 1991); followed by Flower 2008, 159–166. As Jameson notes, there is terminological fuzziness in that the broader term *hiera* is sometimes used to refer to *sphagia*. On diachronic changes in practice, see Parker 2000, 301–304.

[16] Quicker methods: Jameson 2014, 107–108; cf. Dillon 2008, 244–245 (on spurting blood). Discussion of the victim's position during slaughter: Ekroth 2002, 271–274.

[17] Pritchett (1971, 109–110) distinguishes between the *hiera*, which he correctly describes as divinatory, and *sphagia*, which he limits to a supplicatory and propitiatory function. He does not acknowledge that signs indicating that the *sphagia* are *kala* are a form of divination. Parker (2000, 299) follows Jameson, distinguishing between "consultative sacrifice" and *sphagia* on the point of battle, while acknowledging that the latter also provided omens. Unambiguous: e.g. Hdt. 9.61 (*esphagiazonto* on the point of battle with Mardonios but the *sphagia* were not *chresta*); Xen. *An*. 6.5.21 (distinguishing between good signs derived from *hiera*, *oionoi* and *sphagia*), 1.8.15 (both the *hiera* and the *sphagia* are *kala*). See also Aesch. *Sept*. 230–231 (pairing *sphagia* and *chresteria*).

[18] Sure historical example: Jameson 2014, 112. Dillon (2008, 248–251) argues for Artemis as the regular recipient.

[19] Inauguration of bloodshed: Jameson 2014, 115 with fig. 6.1, 122–123. For the Cleveland kylix (Cleveland, Museum of Art 26.242; *BAPD* 9003650 *c*. 490–480 BC), see Ekroth 2002, 272, fig. 11. Parker (2000, 308–309) sees the animal *sphagia* on the point of battle as symbolically representing *both* the enemy ("them") and a substitute for one of "us", a "precautionary self-maiming". I suspect that the latter mental model would be activated only in the special case where the victim is a human member of the in-group. Additionally, from a cognitive perspective, dual use of one mechanistic model (here, Similarity) for the *same* causal event could be problematic; this question requires further study. On substitution and human sacrifice see most recently Parker 2013.

[20] Moment of kill: van Straten 1995, 103–113; Dillon 2008, 240–242; Jameson 2014, 102, n. 11.

[21] See the *sphagia*: Thuc. (6.69.2) describes the *manteis* "bringing forward" (*proupheron*) the *sphagia* before the hoplites charge; the scholiast on this passage says that the ritual was performed in front of the armies.

[22] Authors describing the ritual: e.g. in Eur. *Heracl*. 399–400 the *sphagia* are for "the appropriate gods" (*hois chre*). Szymanski (1908, 89–90) proposed that the divinatory function of the *thysia* made in camp was transferred onto the *sphagia*: "*Quod si recte suspicor, ratio divinandi in* hierois *usitata ad* sphagia *paulatim est translata*."

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Oath *sphagia*: are they ever offerings?

Dual causal models for *sphagia* were also activated in Greek oath rituals. Let us examine the mechanistic element first. Performative bloodshed and contact with blood or bloodied flesh were used for oaths of special solemnity.[23] A technique common in both the Greek world and the Near East involved the mutilation of an animal. The oath-takers cut up the unfortunate creature, explicitly or (more often) implicitly calling down the same fate on themselves if they broke the oath.[24] Chris Faraone and Irene Berti note that the Greek rituals were characterized by physical contact with the animal carcass or some part of it.[25] Contact with the carcass strengthened perceptions of efficacy, for it created an intuitively satisfying tie between the oath-taker and the slaughtered animal. Blood was sometimes used in similar fashion; Aeschylus and Xenophon both describe "slaughtering into a shield" and the dipping of hands or weapons into the collected blood. Perhaps bloodying the *inside* of a shield prophesied similar gore on the interior of the shields of the forsworn, while contact with the blood tied all who swore to this fate. The blood may then have been poured onto the ground with the implication that the blood of the forsworn would similarly be spilled.[26]

Most scholars agree that this use of animals is performative (i.e. magical), without tackling the question of whether the animals are also to be regarded as offerings. In fact, explicit language of offering is rare in attested oath rituals and the procedures involving performative acts typically did not include apportioning a part to the god, nor consumption by participants.[27] On the other hand, formal Greek oaths virtually always involved an explicit appeal to gods as witnesses and/or guarantors: should a participant perjure himself, the gods would perceive the crime (hence the common invocation of Helios and Ge, whose ubiquity makes them effective witnesses). Superhuman beings such as Zeus or the Erinyes might also be assigned the role of punishers.[28] Thus, an agentive causal model (divine scrutiny of behavior, and punishment through divine action) was supplemented in certain solemn cases with a mechanistic model (punishment through the Laws of Contact and Similarity). Although the Greeks themselves may have believed that "only fear of the gods" guaranteed that oaths would be kept, the Laws of Contact and Similarity must also have operated powerfully to deter oathbreaking.[29]

Iliad Book 3 takes the unusual step of representing animals as offerings in an oath ritual, yet supplements the killing with a clearly magical procedure of libation using the Law of Similarity.[30] When the idea of a single combat between Menelaus and Paris is raised, Menelaus calls for the following preparations:

[23] For oaths see Cole 1996; Sommerstein & Bayliss 2013; Sommerstein & Torrance 2014 (esp. 138 on magic and "increased binding power").

[24] Cut up: the pieces of the oath victim were called *tomia*: Dem. 23.67–68; Cole 1996, 233; Georgoudi 2018, 190–195. The standard terminology when animals were involved was "to cut oaths" (*horkia temnein*); see Sommerstein & Bayliss 2013, 150–152. Faraone (1993, 65–72) collects and discusses examples of sympathetic magic in Greek oath rituals. Konstantinidou (2014, 22–23 with n. 68) identifies only three Greek instances in which the analogy is made explicit: the Theran colonists' ritual (*ML* 5.23–51), Hom. *Il.* 3.297–301 (discussed below), and a Molossian ritual related by a paroemiographer (*Prov. Coisl.* 57 Gaisford [1836]) in which oathbreakers are to be cut down and chopped up like the sacrificial ox, and their blood to be poured out like the wine from the vessels. Additional examples are present in the Near Eastern material, where magical analogies are more often explicit: Faraone 1993, 62–63 and 65–66.

[25] Contact: Faraone 1993, 66; Berti 2006, 194–195. The case of Demaratos (Hdt. 6.67–68; Torrance 2014, 4 and 140, n. 31), who asked his mother about his paternity while forcing her to hold *splanchna* from a sacrifice to Zeus Herkeios, is different from a normal oath ritual in that the mother does not voluntarily self-curse; the son instead attempts to coerce her to speak truth by imposing oath-like conditions. See also Bednarek in this volume, *Chapter 9*.

[26] Aesch. *Sept.* 42–48; Xen. *An.* 2.2.8–9; cf. Eur. *Supp.* 1195–1202. Pouring on the ground: Faraone 1993, 67, n. 31. This activation of Similarity (the analogy between wine and the blood of the perjuror poured out) may also account for the ubiquity of libations as a ritual activity in truces and treaties, and the metonymic use of *spondai* as a term for such agreements: Konstantinidou 2014, 22 with n. 65; Sommerstein & Bayliss 2013, 242. The sinking of iron in the sea represents a different analogy, of permanence: on leaving Phokaia, the Phokaians (Hdt. 1.165) swore never to return before the iron emerged again. A similar action is attested without explicit analogy in the oath of the Delian League (Arist. [*Ath. Pol.*] 23.5 and Plut. *Vit. Arist.* 25.1).

[27] Performative: Faraone (1993, 66) notes that oath victims fall into the category of *sphagia* which are "never cooked, shared in fellowship or offered up as gifts to the gods." Burkert (1985, 252) is more cautious, saying that the matter of eating oath victims "was disputed". Sommerstein & Bayliss (2013, 152) call oath rituals examples of "sympathetic magic", but also speak of "oath offerings" (154). Torrance (2014, 148–149 and 151) acknowledges the role of sympathetic magic in oath slaughter and libations, without addressing whether the animals are offerings, but she states (139 with n. 22) that the carcasses were discarded or burned. Cole (1996, 230–233) emphasizes analogy and correspondence in oath ritual, but also points to the variety in procedures.

[28] Zeus or Erinyes: discussion and sources in Konstantinidou 2014, 6–19. Witnessing transgression and administering punishment are to be regarded as distinct roles, although one god or set of gods may function in both. We should also take into account the possibility that the simple self-curse ("If I am lying, may I perish") functions linguistically as an instance of the Law of Similarity, since belief in the magical power of spoken words to bring about what they represent is well-attested. Thus every conditional self-curse, even in the absence of a ritual killing or the pouring out of liquids, may depend fundamentally upon Similarity, with divine observation and punishment a complementary but cognitively distinct development. Contrast Sommerstein & Torrance (2014, 1–2) who write that a superhuman power is always invoked either explicitly or implicitly ("When not explicitly specified, the identity of the guarantor power will be either implied in the context or given by the culture").

[29] "Only fear of the gods": Burkert 1985, 252.

[30] For the oath in *Iliad* Book 3 see Kirk 1985, 274–311 *passim*; Faraone 1993, 73, n. 54; Kitts 2003 (identifying the Homeric ritual as "metaphorical transformation"); Berti 2006, 183–193.

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οἵσετε ἄρν', ἕτερον λευκόν, ἑτέρην δὲ μέλαιναν,
Γῆ τε καὶ Ἠελίῳ: Διὶ δ' ἡμεῖς οἴσομεν ἄλλον:
ἄξετε δὲ Πριάμοιο βίην, ὄφρ' ὅρκια τάμνῃ
αὐτός, ἐπεί οἱ παῖδες ὑπερφίαλοι καὶ ἄπιστοι,
μή τις ὑπερβασίῃ Διὸς ὅρκια δηλήσηται.
(Hom. *Il.* 3.103–107)

You bring lambs, one a white male and the other a black female,
For Ge and Helios; for Zeus we shall bring another.
And lead mighty Priam here, that he may cut oaths
Himself, since his sons are arrogant and faithless,
Lest anyone by overstepping do harm to the oaths of Zeus.[31]

Each side contributes at least one animal; the sex and (in the case of Ge and Helios) the color of the animals are chosen to correspond to recipient deities, a procedure common when animals are killed as offerings. In historically attested oaths, by contrast, norms often specified that the animals must be male, full-grown, and uncastrated. As Susan Cole notes, this technique increased efficacy by strengthening the analogy between the oath victims and the adult men swearing the oaths. Although women could participate in private oath rituals, the vast majority of oath rituals were public, used to bind men when taking office, serving on juries, testifying in court, and in other civic contexts.[32]

In *Iliad* 3.268–274, Agamemnon cuts hairs from the lambs and has them distributed to the participants, bringing them all into physical contact with the oath victims. He then prays (3.276–280) to a group of gods overseeing the oath: Father Zeus who rules from Ida, Helios who beholds and hears all things, the rivers and the earth (*gaia*), and "those beneath who exact the price from the dead, whoever swears an oath falsely." The list no longer corresponds exactly to the oath victims.[33] After stating the terms of the oath, Agamemnon cuts the lambs' throats and lays them on the ground (*epi chthonos*) gasping for breath and losing spirit (*thumos*). The men take wine in the cups and pour it out, praying to Zeus and the other immortal gods (3.298–301) that whoever first goes against the oaths should have their brains poured on the ground (*chamadis*) like the wine, both theirs and their children's, and that their wives should be enslaved to others. Priam then states that he does not wish to watch the combat, places at least two of the dead lambs in his chariot (3.310–312), and drives off.

Homer's description initially states that the animals are "for" Helios, Ge and Zeus, but as in most oath slaughter, no part of the animal is set aside or burned on an altar for the gods. According to Geoffrey Kirk, attention is drawn to the moment of death, using terms (*aspairein*, *thumou deuomenos*) elsewhere applied to the last breaths of defeated warriors.[34] Why Priam takes possession of the lambs' carcasses is unclear (in *Iliad* 19.266–268, the herald throws the boar used as the oath victim into the sea), but he may intend to display them to the people inside the walls before disposing of them.[35] Once the lambs are dead, wine is poured out. The functioning of the Law of Similarity in the explicit analogy between spilled wine and spilled brains is unmistakable (as is the element of horror), yet even here, the agentive model is activated with a prayer to "Zeus and the other immortal gods" to fulfill the conditions of the oath. In general, the Homeric poet emphasizes the agency of the gods in enforcing oaths, and Zeus' special role in the process.

Another variation of oath ritual is used when oaths are sworn at altars, especially when the terms of the oath are pertinent to the deity's functional domains or personal interests (such as oaths regarding paternity sworn at the altar of Zeus Phratrios, or oaths of purity sworn by Dionysos' Gerarai at his altar in Athens). In such cases, we have not to do with *sphagia*, but with *hiera*, slaughtered according to the norms of alimentary *thysia*. The ritual is carried out "at the altar" (*pros toi bomoi*) and those swearing must place a hand on the altar, on the god's victim, or both. In these cases there is no performative mutilation, and (if I am correct) the touching occurs before the slaughter. The mental model is agentive, except for the physical contact with the god's property, which intensifies the oath-swearer's accountability to the god.[36]

[31] My translation.

[32] Cole 1996, 231–232 (male, full-grown, and uncastrated animals), 237–240 (on women and oaths). For the relative paucity of female oath-takers see also Fletcher 2014, 156.

[33] By analogy with the list of gods in Agamemnon's oath at Hom. *Il.* 19.258–260, the underworld punishers are likely the Erinyes. Both groups of oath-gods encompass the sky, the earth and the underworld, and perhaps the three lambs of Book 3 can be interpreted as corresponding to these realms; in Book 19, however, the oath victim is a single boar. Burkert (1985, 251) notes the similarity between these lists of oath-guarantors and Near Eastern lists which encompass the cosmos by including rivers, springs, clouds, mountains, etc.

[34] So Berti 2006, 187: "An apparent aporia has been seen in the fact that although verses 103–104 explicitly state that the three lambs were destined for Zeus, Helios and Ge, it looks as if the animals were not really offered to the gods." Last breaths: Kirk 1985, 307–308.

[35] Display: Kirk (1985, 310–311) lists the possible explanations for Priam's action.

[36] In Athenian phratry ritual, there seem to have been no *sphagia*, but an alimentary *thysia* with the touching of the altar or victim of the guarantor god, Zeus Phratrios: Andoc. 1.126; Isae. 7.16; Dem. 43.82 (the latter two with touching of *hiereion*); Sommerstein & Bayliss 2013, 10–13. In the oath of adjudication of youths into the phratry of the Demotionidai (*IG* II² 1237), the oath-takers swore while touching the altar of Zeus Phratrios (lines 75–76), but again no oath victim is mentioned, although there was sacrifice to Zeus. The touching emphasizes the god's authority over the procedure and participants (thus, ballots are also to be taken "from the altar", lines 17–18, 29 and 84). The key element in this case is

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Purification and mental models

USE OF DUAL METHODS (AGENTIVE AND MECHANISTIC)

The final category I will discuss is purification using blood. Several scholars have noted that in killings for purification, it is the norm for no divine recipient to be specified, but the situation is more complex than this.[37] Ritual killing for purification may be performed in order to obtain blood which can be used as an ingredient or implement (mechanistic), or it may be conducted in order to placate and soothe deities after pollution has occurred (agentive). These two methods may be combined in one ritual, but the animal used as an offering is normally different from the animal used for the mechanistic procedure. The Kyrene cathartic law contains several examples of situations where pollution has occurred in a sanctuary, thus offending the deity. For example, someone may offer an animal species which is unacceptable to the god. The remedy is for the offender to wash the altar and himself, "purify the shrine" by an unspecified, probably bloodless method, and then to "sacrifice" (*thyein*) a full grown animal as penalty.[38] Both a mechanistic method and an offering are required in order to achieve purification, before normative alimentary *thysia* can resume. In Apollonius of Rhodes' description of the purification of Jason and Medea from murder (*Argon*. 4.685–717), there is some overlap of mental models, for Apollonius uses the phrase *reze thuopolien* ("performed sacrifice") when describing the piglet killed to provide blood, yet no recipient is identified.[39] Medea uses this blood to sprinkle the offenders, then pours libations intended to soothe Zeus Katharsios. After the offscourings are removed, additional offerings of cakes are burned to stave off the Furies and make Zeus kindly. In both of these cases, the purification process is incomplete without an offering of atonement or placation, because both involve some degree of *agos*, offence to a superhuman being. In cases where no *agos* has occurred, pollution can usually be cleansed or avoided by magical methods alone.

CIRCUMAMBULATION AND THE QUESTION OF "ABSORPTION"

Next, let us turn to the purifying uses of piglet blood. I will suggest that we need to distinguish more clearly between two forms of mechanistic use which are often lumped together, circumambulation with a piglet or other animal, and sprinkling of blood directly onto an individual.[40] These two techniques and the mental models supporting them are significantly different, as are the circumstances leading to their use. Before every meeting of the council and assembly in Classical Athens, a piglet was killed and its corpse was carried around the perimeter of the meeting space by an official called a *peristiarchos*. To take a seat on the Pnyx was to "go inside the purification". The etymology shows that the word was coined to describe a similar operation of circling a hearth, *histia*. The prefix *peri-* is consistently used in the vocabulary for this action: the verbs include *perikathairo*, *periphero* and *peristeicho*, while *peristia* are synonymous with *katharsia*, the materials of purification.[41]

The emphasis on circumambulation and turning around shows that the tracing of a circuit is the primary action here, and that the technique inscribes a boundary separating the pure from the impure. Scholars who have discussed this ritual tend to assume that the operation is performed in order to cleanse impurities within the inscribed area.[42] But as Plato notes in the *Sophist* (227c–d), demarcating a line between good and bad is the key concept when cutting a ritual boundary. Therefore a circle thus inscribed could also form a boundary keeping bad things out of a place which has not yet been polluted. The existing scholarly model envisions the assembly or theatre or temple as place which builds up impurity the way a body builds up dirt, and thus requires regular cleansing. But what if the boundary is established prophylactically in certain cases, in order to keep *out* malevolent and impure influences? We can compare a ritual attested for Methana (Paus. 2.34.2), where two men cut a rooster in half and run around the vine-

contact with the god or his property, as when moderns swear with a hand on a holy book. Oath of the Gerarai at the altar of Dionysos: Dem. 59.78.

[37] No divine recipient: Healey 1964, 158 ("a sacrifice without a deity"); Parker 1983, 139, n. 142, 393; Ekroth 2002, 251; Clinton 2005, 179. My argument corresponds to that of Georgoudi (2001–2002; 2017; 2018, 178–180), who urges greater caution in speaking of "cathartic sacrifice" and distinguishes carefully between cathartic and sacrificial procedures. Because of the association of the term "sacrifice" with offering, I prefer "ritual killing" for instances of slaughter with no evident recipient.

[38] Probably bloodless: *LSS* 115 (*SEG* 9, 72): see A lines 26–31 and 33–42, and B lines 2–8. "Purify the shrine" is probably a bloodless method, because "purify with blood" seems to be a category of its own (lines A 33–42). The "preliminary sacrifice" (*prothyein*) and "penalty" (*zamia*) of these lines refer to offerings made specifically for purification from *agos*, the anger of a superhuman agent. Compare the culturally hybrid Marmarini ritual norm (Decourt & Tziaphalias 2015, B lines 1–6: double sacrifice of fowls).

[39] On this passage and the anomaly in terms of sacrificial norms see Georgoudi 2017, 121.

[40] Cole (2004, 47, n. 90) evidently classifies the piglet blood used on Jason and Medeia in Ap. Rhod. *Argon*. 4.700 and 4.709 with circumambulation methods.

[41] Vocabulary of "purifying around": Parker 1983, 21–22; Cole 2004, 47–49. "Go inside the purification": Ar. *Ach*. 44. *Peristiarchos*: Ar. *Eccl*. 128–130; Istros *FGrH* 334, F 16 with additional sources in Jacoby's commentary.

[42] To cleanse the ritual area: e.g. Parker 1983, 372 ("assemblies ... were regularly cleansed in this way"); Cole 2004, 47–50 ("ritual repair"). For Georgoudi (2017, 131), the assembly space is "now 'cleansed' and therefore 'protected'".

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yards in opposite directions, each carrying a half, in order to protect the vines from the destructive force of the wind called Lips.[43] We can also compare the story that in 370 or 369 BC the Argive democracy massacred more than a thousand of its own citizens, prompting the Athenians to have a *katharsion* carried around their own assembly. Did the very announcement of such deeds create a pollution in the assembly space which required cleansing, or did the news trigger the protective measure of creating a boundary?[44] In the more self-conscious practice of circuit-cutting by magicians, circles are used as defensive boundaries against hostile spirits, as in Lucian's (fictional) description of a Persian *magos* circumambulating Menippos "to protect me from being harmed by ghosts".[45]

As Cole has pointed out, individuals could use a related method to purify themselves. On Kos, the priest of Zeus Polieus who became polluted was to "cut around himself" (*peritamestho*) with a male piglet.[46] Presumably the Hellanodikai and the Sixteen Women at Elis used this technique when they cleansed themselves (*apokathairontai*) before rituals at Olympia with "a piglet suitable for purification (*pros katharmon*), and with water."[47] The blood technique is often paired with the action of "sprinkling about oneself" (*perirrhainesthai*) performed with water. Where water is used, it is difficult to tell whether the dominant mental model is that of washing or boundary-tracing. Unfortunately we do not know the exact gesture used in *perirrhainesthai*. Depending on the situation, perhaps water was sprinkled around oneself, onto the body directly, or even outward. (In addition to *perirrhanteria*, vessels called *aporrhanteria* are also attested, as is the verb *aporrhainesthai*.)[48]

Returning to the tracing of a circuit of blood, what was the mental model (or models) supporting its efficacy? Explicit discussions of how the ritual worked are lacking in our sources, an omission which (in my view) points to a strong intuitive component.[49] It seems clear that blood was required in situations where water would not be efficacious enough on its own, that is, for higher intensity jobs.[50] We might speculate that blood was represented as a more powerful substance because of its associations with life and death. Most scholarly discussions speak of a process of "absorption" by which the piglet carcass or the blood itself attracted the impurities. Such discussions of "absorption" implicitly invoke the Law of Similarity in that the piglet or its blood is impure and thus attracts impurity. I find this unsatisfying as an intuitive model for a number of reasons. First and foremost, I am not convinced that the Greeks regularly represented blood as an intrinsically impure substance, given its ubiquitous use on altars and for

[43] Compare O. Paoletti (*ThesCRA* II, 29) who describes circumambulation as having "*una valenza catartica ma anche magica e apotropaica*", but in the latter case he has in mind Paus. 2.34.2 rather than the procedure in the assembly.

[44] Argos: Isoc. 5.52 and Diod. Sic. 15.57–58 for the context; Plut. *Prae. ger. reip.* 814b for the Athenian reaction. Another oft-cited comparandum is the actions of the Mantineans after the emissaries from Kynaitha visited their city on the way to Sparta (Polyb. 4.21). The Kynaithans had recently committed a massacre, and all cities on their path through Arcadia ordered them to depart, including the Mantineans, who took additional steps. They "both performed a purification (*katharmon epoiesanto*) and carried blood victims (*sphagia*) around the city in a circuit and around the entire territory." In this case, the guilty men were actually in proximity to the city, thus causing pollution by contact, but a need to protect the city from the avengers pursuing them may have been felt.

[45] *Magos*: Lucian, *Necyomantia* 7. Similarly, the title page of the 1616 edition of Marlowe's *Doctor Faustus* shows the magician within a magic circle, being menaced from outside by a demon.

[46] Kos and male piglet: *IG* XII.4 332, A line 18 (= *LSCG* 156, A line 14); Cole 2004, 137–140. Compare the case of a priestess of Demeter on Kos: *IG* XII.4 72, lines 28–30 (*LSCG* 154, A lines 28–30); Paul 2013, 78. If polluted she was to cut around herself with a female piglet (text restored on the basis of *IG* XII.4 332, A line 18), then use something (presumably water) from a golden vessel and something from a *prospermeia* (grain vessel?). As restored, these substances are sprinkled round (*perirana(n)to*). Clinton (2005, 169) interprets *peritamestho* in the priest's case as a passive rather than a middle.

[47] Olympia: Paus. 5.16.8. At Kyrene, the man subject to a tithe must "purify himself with blood" (33–75) as part of the procedure; I am presuming that he did not sprinkle himself with blood, but cut a circle around himself with the dripping piglet.

[48] Cole (2004, 46, n. 81, and 140) opts for the mental model of "drawing a circle with pure water" (tracing a boundary) rather than that of washing. Ginouvès (1962, 299–310) states (308) that it is not merely a question of washing the hands but "*s'asperger le corps*" as an equivalent to literal bathing, presumably per the Law of Similarity. Support for a mental model of washing comes from the sparse evidence (Ginouvès 1962, 308, n. 7) that *louterion* could be used as a synonym for *perirrhanterion*. On the other hand, "washing/bathing" and "sprinkling" are regularly distinct actions (e.g. Pl. *Cra*. 405b; Theophr. *Char*. 16.2). For *aporrhanterion*, *aporrhaino* and related forms see e.g. Eur. *Ion* 435; *IG* II^2 1425, line 306 (gold *aporrhanterion* with figures); *LSCG* 129, line 18 (Anaphe); *LSCG* 151, B lines 23–24 (Kos); *LSCG* 156, A lines 15–16 (Kos).

[49] Cole (2004, 139–140) cites Pl. *Soph*. 227a for the model of the homeopathic, absorbent sponge vs the allopathic cathartic drug, but the terminology is not this precise. *Spoggistike* (sponging) and *pharmakoposia* (drinking of medicine) are mentioned side by side, but these seem to refer more to exterior vs internal cleansing than absorbency vs expulsion. Immediately prior, gymnastics and medicine, which "discriminate" impurities within the body, are contrasted to the bath-keeper's art (*balaneutike*), which deals with externals. Like most anthropologists, scholars of the Greek and Roman world typically view the lack of emic explanations for many ritual acts as the result of unquestioning adherence to social convention (when explanations are given, they often take aetiological form and appeal to tradition). Cognitive approaches to ritual, however, trace its characteristic features to intuitive processes. See Larson 2016, 187–211.

[50] "High intensity" and "low intensity" rituals: see Ekroth (2002, 325–330), who classifies battle-line *sphagia*, oath ritual and "purification in connection with singular events" as high intensity. She also posits a category of "modified rituals" of intermediate intensity, including routine purification.

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Ritual action	Victim represents:	Direction of analogy
Battle-line *sphagia*	Enemy	Victim to enemy
Oath *sphagia*	Self (conditionally)	Victim to self
Purificatory mutilation/bisection	Self (as substitute)	Self to victim

Table 2. The Law of Similarity in performative slaughter of animals.

food.[51] Nor were pigs generally regarded as impure.[52] Second, there is a substantial conceptual leap from circuit-cutting to absorption. Closer to true absorption models are the purification methods which involve direct physical contact, such as smearing with mud or bran, or rubbing the affected person with a puppy.[53] Mud and bran mash have concrete absorptive properties and could function like a poultice, while dogs were the closest in the Greek bestiary to an impure animal.[54] Tracing a circuit may constitute a form of "contact," linking the animal or its blood with whatever is surrounded, but whether contact and absorption can be equated is another question.

We should also be cautious about accepting "like *absorbs* like" as a new law of sympathetic magic, until and unless it can be supported by experimental research and ethnographic data. Certainly in some cases, "like attracts like" seems to be a legitimate subset of "like produces like" or "effects resemble causes" (Frazer's Law of Similarity). An example is the use of ersatz coins or wallets as amulets in order to attract money. This principle is usually applied positively, however, whereas noxious or harmful substances or objects are not typically used in magic to attract more of the same, but to drive them away per the Law of Similarity.[55]

MAGICAL SUBSTITUTION

Roman ritual provides clues as to how the manipulation of *sphagia* could result in the aversion of bad things through substitution and the Law of Similarity. Appian (*B. Civ.* 5.10.96) describes a Roman ritual in which *katharsia* (the bodies of animals slaughtered for use in purification) were carried in skiffs three times around a fleet with prayers to turn the bad omens (*apaisia*) against the animals; then part of the carcasses were cast into the sea and part burned. In this case, the animals are explicitly regarded as substitutes for the sailors in the fleet. A misfortune either current or believed to be looming could be turned aside onto a slain animal, which by the Law of Similarity took the place of the original target(s).[56] As in oath and battle-line *sphagia*, there is performative killing, but in purificatory mutilation, the expected evil is deflected to the animal (*Table 2*).

In Appian's example, a circuit was traced, but this does not seem to be a necessary element of the ritual; rather, the essential element is some form of contact linking the real and substitute targets, just as contact links the animal carcass and the person swearing an oath in an oath ritual. Valerius Flaccus (*Argon.* 3.439–443) describes a similar ritual in which the seer Idmon carries the animal's entrails among the Argonauts, who need to be protected from the anger of the dead. Idmon walks three times *through* the group, touching the animal's entrails to their armor and clothing; he then disposes of the remains partly in the sea and partly by burning. In the Greek and Near Eastern worlds, a close parallel is the practice of bisecting per-

[51] Parker (1983, 371–372) and Cole (2004, 140) take the position that blood is defiling and impure. Vernant (1980, 129) speaks of blood as an ambiguous substance with regard to pollution.

[52] The new ritual norm from Marmarini (Decourt & Tziaphalias 2015 = *CGRN* 225) cites blood as a polluting substance (B line 81), but the procedures are heavily influenced by Semitic customs. Pigs were not ritually impure among the Greeks in a global sense, although like other species, they might be banned from certain altars.

[53] "Puppification" in Greek contexts is attested in Plut. *Quaest. Rom.* 68, 280b–c ("And for Hekate they bring out puppies along with the other purifying materials and they rub around [*perimattousi*] with puppies those who need purification and they call this kind of cleansing puppy-surrounding [*periskulakismos*]"; note the agentive involvement of Hekate in a ritual with strong mechanistic elements). In Hittite contexts, puppies were held to and moved over the bodies of sick persons while incantations were spoken stating that the puppy was licking each affected part (Collins 1990, 214–216). Such a cure seems to rely on the belief in the dog's curative ability (as in the cult of Asklepios) and the animal is represented as ingesting the illness by licking it off the patient. Other rituals (Collins 1990, 216–218) involve transferring evils from the king and queen to a puppy which is waved over them. In one procedure there is an invocation to let the puppy carry off the evil; the puppy is then taken away and killed. This ritual parallels those in Greek and Roman culture (described below) which use animals as substitute victims per the Law of Similarity. In a second type of procedure, the puppy is waved over the king and queen, and they spit into its mouth, transferring their ills to the animal, which is then killed. The puppy receives the illness through licking, being spat upon, or being identified explicitly as the substitute. Thus the puppy neither "absorbs" ills in the way a sponge might, nor through a principle of "like attracts like". I thank Alice Mouton for alerting me to the Hittite puppy rituals and the Collins article.

[54] Dogs: Parker 1983, 357–358; contra the impurity of the dog see Georgoudi 2018, 200.

[55] My thinking on the question of absorption and its relation to sympathetic magic was stimulated by Cole (2004, 139–141). Although I disagree with her conclusions, her discussion is a laudable attempt to identify mental models supporting the varied processes of purification.

[56] Likewise, one of the explanations Servius Auctus (*ad Aen.* 2.140) gives for the Ludi Taurei is that they were instituted on account of a plague, "so that the public pollution might be turned against the animal victims" (*ut lues publica in has hostias verteretur*). It is not clear whether this ritual involved some form of circuit.

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Table 3. Comparison of instrumental uses of piglet blood.

Circumambulation/cutting around oneself with piglet	Sprinkling piglet blood on an offender, then washing
Magical separation/barrier	Magical staining/washing; piglet blood represents victim's blood
May be routine and recurrent; not necessarily for *agos*	Not routine; normally involves an *agos*
May cleanse existing pollution or be prophylactic/aversive (?)	Always occurs in response to existing pollution
Can be performed on oneself	Must be performed by someone else

sons and/or animals and marching between the two halves.[57] This was often done in order to purify large groups of people, especially armies. Passing between the bisected halves is analogous to being encircled or enclosed, and (I suggest) activates the Law of Contact, while the horrific fate of the victim identifies it as the designated substitute target of disease, misfortune, etc. In such cases, the dominant mental model seems to be not absorption through attraction of like to like, but substitution of one victim for another through the Law of Similarity.[58]

What then of the Greek examples of purification with piglets? The work of the *peristiarchos* seems to be distinct from the Roman cases and the bisections in three ways. First, it is usually routine maintenance rather than a response to an expected or current crisis; second, the cutting of a circuit is essential (for creation of a demarcating barrier) rather than incidental (one of several ways to achieve contact); and third, there seems to be a focus on blood as an instrument (particularly its use in leaving physical traces of the circuit). The Roman and bisection examples, in contrast, focus on the animal's entrails and/or its mutilation, in a fashion similar to oath ritual.[59] In crisis situations where imminent harm was expected, however, or where the ritual was intended to avert the anger of a superhuman being, cutting a circuit with an animal carcass may have converged on the substitution model.[60]

CLEANSING BLOOD GUILT

Now let us compare circumambulation and cutting a circuit around oneself with the cleansing of blood guilt and other pollutions using a piglet (*Table 3*).[61] Whereas the latter typically involves some form of *agos*, the former need not. Whereas the latter is always conducted after pollution has been incurred, the former may (I suggest) be prophylactic. Purification by washing the homicide with pig blood is typically performed by someone else, while *peritamesthai* can be performed on oneself.[62] Finally, the blood is manipulated differently. Rather than being dripped in a circle, it is sprinkled directly onto the individual to be purified of blood guilt, and then washed off. The Law of Similarity seems to be in effect. By creating a visible stain on a killer and washing it off, one washes away the invisible stain too. Washing with water is the key concept in an Archaic Athenian ritual prescription for suppliants: "Then after you and the other *splanchna*-tasters have washed yourselves up, take water and cleanse (the individual). Wash the blood off the individual being cleansed (*tou kathairomenou*) and, after that (*meta tauta*), having removed/taken away the dirty water/residue of the cleansing (*anakinesas to aponimma*), pour it out in the same place." Here the tasting of entrails

[57] Greek examples of bisection in Macedonia and Boeotia, using a dog: Parker 1983, 22. Most of the numerous Hittite rituals involving bisecting of animals simultaneously employ a gate of hawthorn to remove ills: "(As) the billy-goat passes by you and you pull hair off it ... in the same way pull off this offerant evil, impurity ..." (Collins 1990, 218–222). Severed animals (often including puppies) are set on each side of the gate to serve as substitutes to which the misfortunes may cling. Masson (1950, 20 and 21) describes the area between the bisected parts as a "*zone d'absorption*". Parker (1983, 21–22) speaks of the unifying effect such rituals have on the group.

[58] On rituals of bisection see now Georgoudi 2018. While dismissing notions of "magic" as too vague and imprecise (194–195 and 200), she suggests that the shed blood of the bisected people or animals has a purifying effect as in other Greek rituals, creating "*une sorte de 'porte,' de zone d'absorption*" (202, citing Masson 1950).

[59] Focus on blood: Clinton (2005, 170–174) cites Attic and Delian inscriptions recording the cost of wood for burning of purificatory piglets. The piglets are not holocaust offerings, because the cost of wood for their disposal is separate from the cost of wood used on altar fires. Clinton suggests that the efficacious element is the circuit itself (with "absorption"), followed by immolation, rather than the dripping blood. That the blood was insufficient to leave a continuous trail does not detract from its importance, for according to the Law of Similarity, the semblance of a thing functioned like the thing itself; the cognitive faculty of pattern completion would also have operated in such cases, as in children's games of connect-the-dots. For pattern completion, see Larson 2016, 75, 112, n. 30.

[60] Here I have in mind the Koan custom of using of a piglet of the same sex as a priest or priestess who has become polluted. See the discussion of the priest of Zeus Polieus above with *note 46.*

[61] Blood guilt and other pollutions: In Hippoc. *Morb. sacr*. 1.46 G (p. 358 Littré) purification with blood is performed by specialists on a variety of sufferers "like those who have some miasma, or those with blood guilt (*alastoras*), or those enchanted by people, or those who have done something *anosion*." For the procedure, see Parker 1983, 370–374.

[62] Performed by someone else: The myth of Ixion is pertinent. The first man to shed kindred blood (Pind. *Pyth*. 2.31–32), he was unable to find anyone on earth willing to purify him and finally had to turn to Zeus (Aesch. *Eum*. 717–718, Diod. Sic. 4.69.4). I thank Fred Naiden for suggesting this example. In *CGRN* 13 B (Selinous *c*. 500–450 BCE), the homicide to be purified from *elasteroi* performs the operations himself with materials supplied by a host; however, there is no mention of cleansing with pig blood. Rather, a piglet is sacrificed to Zeus.

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indicates an alimentary sacrifice, but the blood washed off the suppliant presumably comes from a separate animal, most likely a piglet.[63]

Literary sources on the topic of blood guilt, however, focus on the paradox of washing blood with blood, rather than on the concrete procedure of washing the bloodstain with water and disposing of the offscourings. Robert Parker suggests that this homeopathic interpretation is a "secondary development".[64] From a cognitive perspective, washing a stain away with blood is less intuitive than washing it with water. The Law of Similarity, however, entails a likeness between cause and effect. Just as Telephos could only be healed by rust from the spear which wounded him, so perhaps the malady of blood pollution could only be cured by a second application of the "(human) victim's blood", represented by the piglet blood. The piglet is not slaughtered as a direct substitute for either the murderer or the human victim; instead, it simply supplies blood which can be used to recreate the stain. Both water and blood would have been essential in the ritual, with the concepts of "washing" and Similarity as the dominant mental models, rather than "absorption".[65] In all cases of murder and blood guilt, however, it is necessary to keep in view the potential agentive role of angry and avenging spirits, which may require placation through various types of offerings.

To conclude, *sphagia* were deployed in ritual both as offerings to deities and mechanistically, through the laws of sympathetic magic. Dual activation of agentive and mechanistic models occurred in rituals before battle, in oaths, and in some types of purification. In Greek culture, mechanistic models were intuitive and implicit, with the partial exception of oaths, where the mechanistic analogy was sometimes stated as part of the ritual. Rituals which activated implicit mechanistic models of efficacy were easily "infringed upon" by the agentive model of offering, which is normally explicit. Literary accounts reflect this bias, and poets may have encouraged it for theological reasons. Finally, the co-existence of mental models often resulted in dual acts of animal slaughter, or a ritual killing in order to obtain blood plus a non-animal offering, corresponding to the two models of causation.

JENNIFER LARSON
Kent State University
jlarson@kent.edu

[63] Ath. 9.410a–b (= Dorotheus *FGrH* 356, F 1), a cathartic regulation of the Eupatridai. An alternative interpretation is that one animal supplies both *splanchna* for tasting and blood for sprinkling the suppliant, but this would be unexpected given the usual aversion to consuming *sphagia*. See the comments of Parker (1983, 283, n. 11). Georgoudi (2017, 132–135) plausibly suggests that the participle *splanchneuontes* refers generically to the fellows who share in the sacrifices of the Eupatrid *genos*, rather than to a sacrifice in this purification ritual.

[64] Literary sources: e.g. Herakleitos B5 (Diels-Kranz); Aesch. *Eum*. 448–450; Eur. *IT* 1222–1225. Secondary: Parker 1983, 373. The myth of Telephos and Achilles offers support for a folk belief in "like cures like", because Telephos is cured by the spear which wounded him. However, the operation of magical laws in this case is more complex than a simple "like cures like". The Law of Contact is implicated, in that Achilles' attack through the medium of the spear creates a magical bond between the two men (cf. "the hair of the dog that bit one" cures the wound); furthermore, the detail that rust from the spear was scraped onto the wound (Apollod. *Epit*. 3.20) appears to involve the Law of Similarity and recreate the cause (rusty powder = blood). In Apollod. *Bibl*. 1.9.12, Iphiklos is cured of impotence by drinking rust from the bloody gelding knife that scared him; here the rust recreates the shed blood that caused the trauma. In Hippocratic medicine, this folk belief is developed into the far more reflective and less intuitive doctrine of homeopathy, that "like cures like" by establishing harmony, either within the body or between the body and the environment. Medical "homeopathy" and "allopathy" are different facets of the same principle, depending on whether one is treating a symptom or its cause. Nikolova (1999, 105) gives the example of a feverish patient treated with heat. At the symptomatic level, this appears to be homeopathy (like cures like), but it is applied because the cause is excessive cold in the body (opposite cures opposite). On medical homeopathy and allopathy see also Kosak 2004, 115–121.

[65] For "absorption" as the mental model here, note the comment of Parker (1983, 372, n. 14): "There is no explicit Greek testimony for the idea that the evil passes into the animal." For explicit cases, he cites Valerius Flaccus *Argon*. 3.439–443, App. *B. Civ.* 5.96.401, and Servius Auctus *ad Aen*. 2.140, but as I have argued above, the principal mental model in these Roman instances is substitution rather than absorption.

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GUNNEL EKROTH

12. To burn it all?

The practice of holocausts and moirocausts in ancient Greek religion

Abstract

This paper offers a review of holocaustic rituals in written and material sources arguing that this type of sacrifice was rare. It further addresses if the animal was burned whole or if the carcass was flayed, emptied of blood and intestines, and sectioned before being placed onto the fire. Since the evidence suggests that holocausts did not necessarily mean the burning of an intact animal, the relation between holocausts and moirocausts, sacrifices at which a larger part of the animal was burned, is also explored. Finally, the ancient evidence for holocausts is considered in the light of the results of the experimental cremation of a lamb and a pig performed at Uppsala in 2014. It is argued that a Greek holocaust may have aimed at burning the meat beyond human means of consumption rather than at a total annihilation of the carcass by fire, and that the long time it seems to have taken to perform a holocaust can be linked to the purpose of the ritual.

Keywords: Greek animal sacrifice, experimental archaeology, holocaust, moirocaust, burning, fire, carcass, meat

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Holocaustic sacrifices, rituals at which apparently the entire animal was put into the fire and no meat was left for the worshippers to consume, are perhaps the least studied of Greek sacrificial practices. But what did such rituals actually mean in terms of the treatment of the sacrificial animal's body? This paper will take a closer look at the practicalities of holocaustic sacrifices of animals, in particular cattle, sheep, goats, and pigs.[1] Of central importance is what the treatment of the animal's body may tell us about how these sacrifices fit into the larger context of burning as a ritual action in Greek sacrificial practice, but also about the role and function of holocausts within Greek religion at large. In what follows, I will address the wholeness of the animal's body at holocausts, the partial burning of the sacrificial victim, as well as reflect on the results of an experimental holocaustic burning.

Background

Our knowledge of holocaustic sacrifices comes primarily from the epigraphical and literary record.[2] Yet, overall, the body of direct evidence is quite small and scattered. Such rituals are visible in the epigraphical material from animals marked as ὁλοκαυτός—to be burned whole, or through a similar terminology focussing on burning, καυτός (cf. also the related verb καρπόω). In the literary texts, we meet other terms, foremost the verb ἐναγίζω, which is used for holocausts for recipients who have a connection with the realm of the dead, such as the departed and the heroes.[3] There is also the verb ὁλοκαυτέω but this is mainly used for non-Greek sacrifices, in particular Israelite ones.[4] Apart from these direct instances of sacrifices being marked as holocausts, there is circumstantial evidence,

[1] Birds and fish could also be burned whole, but are left aside here. Chickens and roosters sacrificed as holocausts are known from Isis cults, see e.g. Leguilloux 2003, 507–508; Brun & Leguilloux 2013, 167–180. For a probable holocaust of fish, see the sacrifices to Herakles Diomedonteios on Kos, *CGRN* 86, C line 82.

[2] For the written evidence for holocausts, see Ekroth 2002, 217–242; 2017a, 47–50; 2018, 310–312.

[3] On *enagizein* and its related nouns *enagisma* and *enagismos*, see Ekroth 2002, 74–128.

[4] See Rudhardt 1992, 286–288. The term is also encountered in the new Marmarini inscription (*CGRN* 225), which mainly concerns Near Eastern divinities, see Parker & Scullion 2016, 225–228 and 252–253. See also Pirenne-Delforge in this volume, *Chapter 10*. For the relation between Greek and Israelite practices, in particular holocausts, see Ekroth 2018 as well as Greer in this volume, *Chapter 14*.

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especially in sacrifices where no priestly perquisites of meat were handed out, which could be taken as an indication that the animal was entirely burned.[5]

Judging by the written evidence, holocausts were never a prominent feature of Greek ritual practice. The small number of concrete instances evidenced in inscriptions and texts should be compared to the frequency of *thysia* (the verb *thyein* clearly referred to a sacrifice at which the meat was eaten), or the many epigraphically attested cases where no particular term is mentioned, but where meat is handled and consumed at sacrifices. Unusual actions, not only holocausts but also a particular handling of the blood, had to be marked: sacrifices where there was no meat to consume was evidently such a case. Apart from using special terminology, non-consumption needed to be highlighted as an unusual feature. An example is the sacrifice of a piglet to Zeus Polieus in the sacrificial calendar from the deme Thorikos in Attica, dated to the second half of the 5th century BC.[6] This ritual is specified as a holocaust of a piglet, and a further clause adds that "the priest is to provide lunch for the attendant" on this particular occasion, underlining that there was to be no meat to consume. The infrequency of holocausts is also evident from a quotation of Theophrastus in Porphyry: "If the Greeks were ordered to sacrifice like the Jews and the Syrians did, they would stop to do so altogether, since these people do not eat the animals but burn them completely."[7]

If we turn to the iconographical evidence for Greek ritual practice, there are no evident depictions of holocausts in comparison with the around 300 images of various stages of *thysia* sacrifice.[8] Certain unusual scenes, for example of a low altar on top of which the skull of a bovine is placed, have been suggested as possible representations of a holocaust, but these are better interpreted as denoting the commemoration or inauguration of an altar through the deposition of a *bucranium*.[9] This absence of depictions of holocausts can be taken as an additional indication that holocausts were unusual, but we should remember that there are hardly any depictions of purifications, oath takings and battlefield sacrifices, rituals which usually did not include any consumption of meat either.[10]

We seem to be facing iconographic conventions of what can or should be shown, but the lack of representations of holocausts concurs with the dearth of such rituals in texts and inscriptions. A more compelling argument for the scarcity of holocausts is the zooarchaeological evidence. While *thysia* sacrifice is attested archaeologically at almost 20 Greek sanctuaries, from the very end of the Bronze Age into the Hellenistic period, and each new sanctuary excavation that yields bones seems to add to this number, there are very few cases of holocausts revealed by the zooarchaeological record.[11]

Within the Archaic to Hellenistic periods, holocausts of piglets are demonstrated in the cult of Demeter and Kore. At the Sanctuary of Demeter and Kore in the city of Mytilene on the island of Lesbos, pits filled with ash and thousands of remains of calcined juvenile piglets were recovered, dating to the late Archaic to early Hellenistic periods.[12] The bones stem from all parts of the skeleton and show some evidence of butchering. Also in the Sanctuary of Demeter and Kore at Corinth, burnt piglets have been recovered in connection with a fire-scarred pit, and what seem to be piglets burned as holocausts have been found in the Sanctuary of S. Anna at Akragas, Sicily, as well.[13] The presence of piglet holocausts within the cult of Demeter is surprising, but these burnt piglets may represent a variant of the ritual at the Thesmophoria, when piglets were deposited into hollows or pits called *megara*, where they were supposed to rot. The burnt piglets would constitute an alternative treatment of the Thesmophoria piglets, at present only visible in the archaeological record.[14] A possible holocaust of a goat and two sheep, and what may have been the fleece of a ram, was found in a pit under the early 6th-century BC Temple R at Selinous, also suggested to be dedicated to Demeter and Kore.[15] This sacrifice may have been part of the rituals linked to the construction of this temple.

In addition to these cases, the most evident example of holocaustic sacrifices comes from the Palaimonion at the

[5] Scullion 2009.
[6] *CGRN* 32, lines 15–16; Daux 1983.
[7] Porph. *Abst*. 2.26.1–2; Theophr. fr. 13 (Pötscher).
[8] See the extensive collections of evidence in van Straten 1995 and Gebauer 2002. For the iconography of holocausts, see Ekroth 2017a, 50–54; 2018, 312.
[9] van Straten 1995, V382, fig. 168; Ekroth 2017a, 51–52. On role of the *bucranium* within sacrificial ritual, see also Zachari in this volume, *Chapter 7*.
[10] For the lack of depictions of such rituals, see van Straten 1995, 3–5; Ekroth 2017a, 52–53.
[11] For the zooarchaeological evidence for *thysia*, see Ekroth 2009, 150–151; 2017a, 47cf. Leguilloux 2004, 64; Reese 2005, 121–123. Evidence for holocausts, see Ekroth 2017a, 54–57; 2018, 312–313.
[12] Ruscillo 2013.
[13] Corinth: Bookidis & Stroud 1997, 243–244. Akragas: Miccichè 2020, 258–259. I am grateful to Sara Karatas for this reference.
[14] The bones from the excavations at Olympia deriving from an undisturbed patch of the Black Layer under the wall of the Pelopion have been interpreted as corresponding to a complete burning of the animals, as elements from the head, body and limbs are represented (Benecke 2006, 247–248). The excavator interprets the bones as deriving from sacrifices as well as from meals, the material being broken up and possibly re-burned after each occasion, see Kyrieleis 2006, 42–47. The burnt or calcined Iron Age material from the sanctuary at Thermon has been suggested to represent holocausts or alimentary rituals, see Gardeisen 2008, 305–311; Papapostolou 2012, 33–36 and 107. Yet some burnt fragments seem to stem from long bones, which could indicate *thysia* sacrifice and does not exlude consumption of the meat.
[15] Marconi *et al*. 2017, 78–79 and 82–86. The ram was only evidenced by a small part of the skull and the horn cores, which may suggest that were attached to the fleece (84).

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Sanctuary of Poseidon at Isthmia.[16] The Sanctuary of Palaimon was constructed *c*. AD 50 and remained in use into the late 2nd century AD. It had three phases, each focusing on a large stone-lined pit used for extensive burning, with fire that was so strong that the walls had crumbled from the heat. Ash, carbonized wood, bones, botanical remains, and pottery accumulated in these pits. A total of more than 27,000 fragments of very heavily burned, calcined and fragmented cattle bones were recovered, as well as 14 unburnt bones. The burnt bones derive from all parts of the animal, demonstrating that these are the remains of holocausts. This particular treatment of the animals in the cult of Palaimon is in fact confirmed by literary sources, who speak of *enagizein* sacrifices to the hero Palaimon, and by a Roman inscription, which mentions the restoration of an *enagisterion*, which must be the pit for the holocausts.[17]

All evidence for holocausts at Isthmia dates from the Roman period, not earlier. The large scale holocausts at the Palaimonion could be compared with the sacrifices to Artemis Laphria at Patrai, described by Pausanias (7.18.11–13), where living animals were driven into the fire and burned. Both these occasions can be understood as a kind of *interpretatio Romana* of Greek cults, especially Greek hero-cults in the case of Isthmia, while the extravagant ritual at Patrai has been argued to be a Roman invention, inspired by the killing of animals in the amphitheatre, rather than an old, indigenous Greek practice.[18]

We should also note that holocausts could be performed as independent rituals, but were in many cases combined with *thysia* sacrifices, the holocaust always being performed first.[19] In those instances where the evidence is more detailed, it is obvious that the holocaust was usually achieved with small and cheap animals, like piglets or lambs, contrary to the subsequent *thysia* at which sheep or oxen were sacrificed. At a sacrifice to Zeus Machaneus on Kos, the god first received a burnt piglet followed the next day by a *thysia* of an ox and three sheep, while a similar procedure may have been undertaken for Herakles on the same island, who on the same day was presented with a lamb burned whole (*aren kautos*) and the sacrifice of an ox.[20] Holocausts of cattle are never attested in connection with *thysia*, and, on the whole, are very rare. A major purification of a sanctuary on Delos involved the holocaust of a bull, a ram and a boar, while the aforementioned Roman cult of Palaimon at Isthmia focused on cattle as well.[21] The total burning of cattle is, in fact, mainly evidenced in the literary sources, for example, Plato's description of the kings on Atlantis performing a holocaust of bulls.[22] Such literary accounts seem to be far removed from the ritual reality, particularly as far as Plato is concerned.

Holocausts in practice

The terms used for holocausts focus on burning and both the archaeological and zooarchaeological material show that this action was essential. But what did this mean in practice? Was the animal wholly burned as one would assume—hide, blood, intestines as well as meat? *Holos* means whole, entire, complete in all its parts, but what does the *holos* element in a holocaust signify more precisely? Most scholars have assumed the burning of a whole animal, but already Paul Stengel stated that holocaustic victims could be burned in parts, while Scott Scullion more recently has claimed that holocausts did not preclude flaying.[23] The arguments for the flaying of holocaustic victims come foremost from the epigraphical evidence, in particular a sacred law from Aixone in Attica.[24] In this inscription, there is a series of sacrifices where no meat is placed on the table of the deity, nor is the priestess given any portions of meat, only the skin. Scullion suggests that there was no meat to distribute on these occasions, as the whole carcass was burned, after the animal had been flayed.[25] The interpretation is possible, but in my opinion not entirely convincing, as it is based on the absence of evidence being taken as evidence of absence, that is, that no mention of the distribution of the meat automatically means that the meat was burned.[26]

More explicit is a passage from the 4th-century BC historian Metrodoros, quoted by Plutarch.[27] The people of Smyrna would sacrifice a bull to Boubrostis, "The ox-devourer" or even "Ravenous appetite", and this animal was cut up and burned as a holocaust, hide and all. The fact that the hide is mentioned as being burned as well, indicates that this was exceptional. That the burning of the skins was not standard practice may also be suggested by Lucian's mocking account of

[16] For the bone material, see Broneer 1959, 313; Gebhard 1993a, 85 with n. 26; Gebhard & Reese 2005, 125–154. On the Palamonion and its development, see Gebhard 1993a, 88–93; 1993b, 170–172.
[17] Ekroth 2002, 89–114 and 121–126. For the *enagisterion*, see Geagan 1989, 350; *IG* IV 203, line 9.
[18] von Wilamowitz-Möllendorff 1931, 385–387. See also the discussion by Pirenne-Delforge 2006, 111–129.
[19] Ekroth 2002, 217–225.
[20] Zeus Machaneus: *CGRN* 86, D lines 10–16, cf. the sacrifice to Zeus Polieus on stele A lines 33–45. Herakles: *CGRN* 86, B lines 8–10. The sacrifices to Herakles may refer to two different Herakleses, however. See also Ekroth 2002, 217–220.
[21] Purification on Delos: *IG* XI.2, 199, A lines 70–71.
[22] Pl. *Crit*. 119d–120a.
[23] Stengel 1910, 98; Scullion 2009. The exception are pigs, which do not have a fleece or hide to remove, but are instead singed, *heusta*, see Ziehen 1899.
[24] Steinhauer 2004, 155–173; *CGRN* 57.
[25] Scullion 2009, 157–169.
[26] See Ekroth 2017a, 50.
[27] Metrodoros, *FGrHist* 43, F 3 (*apud* Plut. *Quaest. conv*. 694a–b).

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the excesses of animal sacrifice.[28] The priest is described as covered in blood, behaving like a primitive Cyclops, when he cuts up the victim, removes the entrails, takes out the heart, pours the blood around the altar and finally burns the goat with its hide and the sheep with its fleece on the altar. The handling of Israelite holocaustic victims has been brought forward in this context as well, since at these sacrifices the animals were definitely flayed before burning.[29] Such practices suggest that holocausts may, already at an early stage of the sacrificial process, not have included the entire body of the animal, since the skin could in fact be removed.

The handling of the blood is less clear. At *thysia*-sacrifice, the animal was killed by cutting the throat or rather by piercing the jugular vein in a controlled manner so that the blood could be kept, prepared and eaten, apart from the small quantity that was splashed on the altar.[30] At rituals of the *sphagia*-kind, the throat seems to have been cut in a more violent motion, making the blood spurt out, sometimes at a particular spot or direction.[31] On a famous cup in Cleveland showing *sphagia*, it is evident that the sword enters the neck of the ram from the side, presumably to cut off the throat in a movement from the inside and out.[32] If there was a desire to empty the carcass of blood, perhaps a similar action was undertaken at holocausts. This would lead to no blood being kept, but it cannot be ascertained from our present evidence.

Of the intestines we know a little more. The extensive mid-4th century BC *lex sacra* from Kos mentioned above, includes a sacrifice of a piglet to be burned on the altar together with its *splanchna*, that is, the liver, heart, kidneys, lungs, and spleen.[33] The innards or intestines, *entera*, are removed, washed and burned as well, but next to the altar. From the Thesmophorion on Thasos, there is a group of small terracotta piglets with their stomachs slit open and the intestines indicated inside the body.[34] A marble figure of a piglet, sold on the art market, represented with the bowels coming out from the stomach and being supported by a human hand, could also be a rendering of a similar practice.[35] These representations may show piglets about to be deposited in *megara* at the Thesmophoria, which had been cut open to quicken the rotting process. On the other hand, if we keep the Koan sacred law in mind, the terracotta figurines and the marble piglet may also represent piglets prepared for holocausts, with the intestines to be removed and burned separately. We can recall here the holocaust of piglets from the Demeter sanctuary at Mytilene, some of which had butchery marks on the ribs and the vertebrae, suggesting that they had been split longitudinally, in a manner similar to the figurines.[36] To open up the animals' stomachs and remove the intestines in order that these be burned separately could have had a particular ritual significance; it could also have been a way to facilitate and quicken the burning process of the rest of the animal.

Finally, what about the carcass itself—was it kept whole or sectioned? Also here we have very little information. At the sacrifice to Boubrostis at Smyrna, the animal was not burned whole but cut into pieces. The zooarchaeological evidence offers some further suggestions. The butchering marks on the piglets from the Demeter sanctuary at Mytilene could represent sectioning in halves.[37] At the Palaimonion at Isthmia, the extensive remains of holocausts of cattle come from a series of large pits, almost 3 by 4 meters and more than a meter deep.[38] The size of these installations may suggest that the bodies were placed whole on top of logs lying across the pits, but the carcasses may also have been sectioned. The bones themselves are less informative as they are heavily burned and maybe even have been re-burned, which makes it difficult to distinguish any cut marks. Israelite sacrificial practices may be relevant as a point of comparison here as well. Both Leviticus and later Jewish sources speak of holocausts of animals which were cut up before burning and even thrown into the fire on the altar in sections.[39]

Implications for moirocausts

Even if our information is sketchy, a holocaust did not necessarily imply the burning of an entire animal in the sense of killing it and putting the body whole in the fire. If a holocaust meant that the animal was skinned, gutted, sectioned, and then burned, the distinction with a *thysia* sacrifice is less obvious, apart from the important fact that at a holocaust there would have been no meat to eat. More importantly, holocausts would in that case not be too different from sacrifices at which a larger part of the animal was burned, the so-called "moirocausts", to use a convenient neologism.[40] By contrast with *thysia* sacrifice, where just the thighbones and the tail section were placed on the altar fire, moirocaust des-

[28] Lucian, *De Sacr*. 13.
[29] Hultgård 1987, 89; Scullion 2009, 15–16.
[30] For the treatment of the blood, see Ekroth 2002, 242–251; 2005; Larson in this volume, *Chapter 11*.
[31] On *sphagia*, see Jameson 1991; 1994.
[32] Cleveland, Museum of Art 26.242; *BAPD* 9003650; van Straten 1995, V144, fig. 112; Jameson 1991, 218, fig. 1.
[33] *CGRN* 86, A lines 33–35; Paul 2013, 36–37. See also Bednarek and Pirenne-Delforge in this volume, *Chapters 9* and *10*.
[34] Muller 1996, 448, nos. 1138–1141, pl. 138; Rolley 1965, 470–471.
[35] Christie's, London, 25 October 2006, lot 110, mid-4th century BC.
[36] Ruscillo 2013, 188.
[37] Ruscillo 2013, 188.
[38] For the Palaimonion pits, see Broneer 1973, 100–102.
[39] For the sectioning of *ôlah* victims, see Hultgård 1987, 89–90; Scullion 2009, 15–22. Throwing: *Letter of Aristeas* (83–120).
[40] For the term, see Scullion 2000.

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ignates sacrifices were a substantial portion of the animal was burned. In other words, there was apparently a range of different types of burning, from the complete destruction of the animal in the fire, though not always as a whole carcass, to the burning of a substantial part of the meat or intestines but not the whole animal, and finally the select burning of particular bones and fat that characterizes a *thysia*.

Moirocausts have been defined from the written sources, foremost the epigraphical evidence, for example the *enateuein* sacrifices attested on Thasos and Mykonos, as well as at Selinous, which presumably entailed the burning of a ninth of the meat; another example might be the burning of skins for Artemis at Erchia.[41] When only meat and innards were burned, we cannot trace the action in the archaeological record, but moirocausts also made use of entire body parts, meat as well as bones, like back legs. The recently published Hellenistic ritual norm from Marmarini mentions a sacrifice "in the Greek manner" of any animal apart from pigs, at which the right kidney, what is probably a right extremity, the heart, the stomach fat (omentum), a front leg and a portion of the tail were to go onto the fire as *hiera*, offerings to be burned.[42] The inscription further stipulates that this sacrifice could be followed by another one, and here the person sacrificing was free to let anyone eat of the meat, that is, this second instance did not involve any burning of meat or entrails.

A similar case of more extensive burning is found in the *lex sacra* from Selinous, dated to *c*. 450 BC.[43] To Zeus Meilichios, a ram was sacrificed from which a thigh was to be burned, as well as offerings from the table, which presumably meant some of the meat presented to the god. Also the bones, *ta ostea*, were to be burned, a highly unusual stipulation in Greek ritual inscriptions. Which bones are referred to here is not explained, but it is unlikely that they were the thighbones and tail for the *thysia*.[44] The fact that they are called bones, *ostea*, suggest that they may have been bare bones stripped of meat.

However, the moirocausts should also be considered in the light of the zooarchaeological evidence. If we look at the animal bones stemming from *thysiai*, most deposits are very uniform and dominated by thighbones and tails. At the *Aire sacrificielle* in Eretria, for example, 93% of the burnt bones consisted of thighbones, kneecaps and occasional tail vertebrae.[45] There are some contexts, which contain a broader selection of body parts. At the Long Altar in the Sanctuary of Poseidon at Isthmia, the Archaic and Classical deposits recovered consisted of bones from cattle, sheep and goat.[46] Back legs, and especially thighbones, were particularly common—characteristics of typical altar debris, but among the burnt bones from this altar, elements of the rest of the skeleton were represented as well, such as the rib cage, the head and the lower back legs.

Also the bone material from Altar U in the Greek Sanctuary at Kommos, dated to *c*. 700–600 BC, demonstrates variations on the *thysia* norm.[47] The species are sheep, goats, and cattle. Of the sheep and goats, thighbones dominate, but there are also remains of forelegs and the lower parts of the back leg, as well as ribs and vertebrae of the back. For the cattle, there is a high frequency of tail vertebrae but the cattle bones also include fragments of the lower back and front legs, the spine, the shoulder-blade and the head. The presence of bones from the feet of these animals is interesting, as these sections almost devoid of meat are often thought to have been discarded at the flaying and initial butchering of the animal.[48]

The prominence of heavily burnt thighbones and tail vertebrae in the altar assemblages from Isthmia and Kommos clearly identify them as the remains of *thysiai*, but the presence of other parts of the victims should be noted as well. As these bones are found on or at the altars, they are not likely to represent random burning but rather purposeful activity. The actions visible in the zooarchaeological evidence from Isthmia and Kommos can be compared to the rituals prescribed at Marmarini and Selinous, and may represent zooarchaeologically demonstrated moirocausts. However, the bare bones to be burned in the Selinous inscription complicate this interpretation. This mention of *ta ostea* is unique in the Greek ritual norms and cautions against interpreting all burnt bones apart from thighbones and tails as having been covered by meat before put into the fire. At Selinous, we may be facing an additional category of sacrificial burning, that of bare bones distinct from a *thysia* or a moirocaust.[49] The practical experiments conducted by Jake Morton are here of great interest in order to understand whether the zooarchaeological remains correspond to meat covered or bare bones, as a meat-covered bones demonstrate a different cracking pattern when burned than bare or fat-wrapped bones do.[50]

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[41] On the *enateuein* sacrifices, see Ekroth 2002, 220–223. *CGRN* 27, line 5 (Thasos); *CGRN* 156, lines 23–24 (Mykonos) and *CGRN* 13, A lines 10–12 (Selinous). For the burning of skins at Erchia, see *CGRN* 52, col. Γ lines 11–12 and Δ lines 11–12.

[42] *CGRN* 225, B lines 34–44; Parker & Scullion 2016, 242–247. See also the contribution by Pirenne-Delforge in this volume, *Chapter 10*.

[43] Jameson *et al.* 1993, A 17–20; *CGRN* 13, A lines 17–20 with commentary. See also the evidence for possible holocausts under Temple R at Selinous, Marconi *et al.* 2017, 78–79 and 82–86.

[44] See Ekroth 2017b, 31–32.

[45] Studer & Chenal-Velarde 2003, 174 and 177, table 2.

[46] Gebhard & Reese 2005, 144 and 149–152, table 1.

[47] Reese 2000, 422, table 6.1, 444, table 6.2, 453, table 6.4 and pl. 6.3–6.4.

[48] For the burning of the feet of sacrificed animals, see *Hymn Hom. Merc.* 136–140, where Hermes in a pit burns the heads and feet of two cattle stolen from Apollo's herd. See also Dibble and MacKinnon in this volume, *Chapters 3* and *4*.

[49] The extended burning of bare bones at Selinous could represent an alternative manner to re-enact *theoxenia*, using bones instead of meat and other foodstuff, see Ekroth 2017b, 29–32.

[50] Morton 2015, 72–73.

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This brief review of holocausts and moirocausts opens up a more complex scenario for the handling of the Greek sacrificial victim. The question is how strict we are to be in our modern establishment of categories for the burning of the animal's body, whether whole or in parts. Have we exaggerated the distinction between holocausts and moirocausts, as well as between moirocausts and *thysia*? These three rituals could be performed in combination, for example, holocausts before *thysiai* or moirocausts as a part of *thysiai*, although burning was the central action at all three. Are we to see the moirocausts as modifications of *thysiai*, increasing the amount of the animal that was burned, or as modifications of holocausts, decreasing what went into the fire? These are questions which certainly require further thought, and which open up for alternative ways of understanding the role of burning of the sacrificial animals, complete or partial, and with or without meat attached to the bones.

Practical experiments

Finally, I would like to return to the holocausts in the "traditional" sense—to kill an animal and burn it whole. Modern scholars have often looked upon this scenario as too complicated, requiring a "veritable inferno of fire". Even Stengel, the "godfather" of the study of Greek animal sacrifice, writing in 1910, thought that holocaustic victims had their intestines removed, and assumed that the burning of complete animals was too impractical or even impossible.[51]

To get a better understanding of holocaustic sacrifices of *whole* animals, an experimental burning was performed at Uppsala in May 2014.[52] All experimental archaeological undertakings have specific goals, but, at the same time, they also raise a number of new questions. It has to be kept in mind that experiments cannot give precise answers, since the ancient setting can never be fully recreated.[53] The result will be suggestions that can provide a better interpretation of the ancient evidence at hand.

Our experiment involved the holocaust of a three-month-old piglet and a six-months-old lamb, two hens, a hedgehog, cattle metatarsals, as well as the burning of cooked meat, fish, eggs, vegetables, grain, nuts, fruit, onions, bread, mushrooms, cheese, wine and other kinds of foodstuffs. The main questions were (1) how much wood was needed to burn the animals and the other items, and how should the pyre be constructed; (2) what happens when an animal is burned whole, unskinned and ungutted—does it explode, smell in a particular way and/or behave in a manner that cannot be understood from the extant ancient sources; (3) how long does it take for the animals to burn completely; and (4) what do the bones look like after the fire has died out and is it possible to discern from the chemical composition of the soil if the animals were intact with the entrails still in place when burned. The first three questions will be addressed here.[54]

To burn an entire animal, a large quantity wood is needed, substantially more than at a *thysia*. This is evident from Greek sacrificial regulations, for example, the expenses at purification sacrifices on Delos, and the recently found inscription from Marmarini in Thessaly even states that if anyone wants to perform a holocaust of a ram, a male sheep or a bird, they have to provide the sufficient amount of wood.[55] At the experimental site, a pyre of dry fir logs, 4 by 2 meters in two levels, was erected (*Fig. 1*).[56] The lower section was reserved for the burning of the cooked food and other foodstuffs, while on top of the higher section were placed the lamb and the pig, the two hens, the cattle metatarsal bones, and the hedgehog.

The construction of the pyre resembled that on Greek vases showing altars, but most of all was modelled on the pyre in the famous representation of King Kroisos about to be burned by Kyrus (*Fig. 2*).[57] This type of construction creates a draft that assures that the fire will not die out and that there will be enough heat.[58] A number of questions immediately arose;

[51] Stengel 1910, 98.

[52] The experiment was a joint venture focusing on Greek ritual practice as well as Scandinavian Iron Age cremation burials. I am very grateful for the collaboration on this project with Frands Herschend, John Ljungqvist, Sofia Prata, Emma Sjöling, Jake Morton, Dan Diffendale and Evy Margaritis, as well as many colleagues and students from the Department of Archaeology and Ancient History at Uppsala University.

[53] For the application of experimental archaeology to zooarchaeology, see Sigvallius' (1994, 15–32) cremation experiments with rabbits, lambs and the head and feet of a bullock; Morton 2015 and Morton in this volume, *Chapter 2*; cf. Lubinski & Shaffer 2010, 241–257. On the use of and approaches to experimental archaeology, see also the contributions in Reeves Flores & Paardekooper 2014. On the methodological implications of autoethnographic investigation of modern religious sacrifice to conceive the sensory impact of ancient animal sacrifice, see Weddle 2013.

[54] The botanical material, zooarchaeological remains, and the soil samples are to be studied in the future.

[55] On the amount of wood listed in inscriptions from Delos suggesting the burning of the animals, see Clinton 2005, 172; *IG* XI.2 199, A lines 70–71 (7 talents of wood = 182 kg, for several large animals, including a bull). For Marmarini, see *CGRN* 225, B lines 67–68 and 71; Parker & Scullion 2016, 252–253.

[56] The kind of wood used in antiquity would presumably be different. Charcoal studies from Greek sanctuaries are still scarce but indicate the use of a variety of woods, such as olive, oak and fig tree (which apparently creates a thick and pungent smoke), see Ntinou 2019, 261–262 (Kalaureia); cf. Kyrieleis 2006, 43, some of the charcoal from the Black Layer at Olympia identified as being oak. Ancient sources occasionally mention the type of wood, e.g. white poplar at Olympia (Paus. 5.13.3). Sigvallius' experiments showed that a mixture of wood from conifers and deciduous trees was optimal (1994, 16–27).

[57] Athenian red-figure amphora by Myson, Paris, Musée du Louvre G 197, early 5th century BC; *BAPD* 202176.

[58] Sigvallius' cremation experiments concluded that this type of "log-house" construction resulted in the most effective pyre (1994, 15).

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Fig. 1. Pyre at start of experimental burning, Uppsala, May 2014. Photograph: John Ljungqvist/ Jhonny Therus.

Fig. 2. King Kroisos on the pyre. Attic red-figure amphora by Myson, c. *500–490 BC. Paris, Musée du Louvre, G 197. Photograph © RMN-Grand Palais (Musée du Louvre)/Tony Querrec.*

should the animals be on top of the pyre or surrounded by the wood?[59] This we cannot know, but Greek representations of *thysia* sacrifices show the items being burned while placed on top of the wood, and still clearly visible when the fire is lit; however, this could be an iconographic convention.[60]

The experimental pyre caught fire easily. The initial smoke, actually consisting mainly of water evaporating from the animal bodies, disappeared within *c*. 10 to 15 minutes (*Fig. 3*) and after half an hour there was only an orange-yellow translucent fire in which the items on the pyre were clearly visible (*Fig. 4*). The heat quickly became so intense that the pyre could not be approached. This suggests that at rituals involving a fire of this magnitude, it would be impossible to add something to the pyre by placing it there manually.[61] Any offerings or additional sacrificial victims, whether whole or in parts, would have to be thrown onto the pyre. The Jewish Hellenistic *Letter of Aristeas* (83–120) in fact comments on the skill of the Jerusalem priests who could throw heavy pieces of flesh onto the burning altar without ever missing.[62]

The temperatures of both the pig and the lamb were measured continuously by metal rods inserted into the right hind leg of the pig, *c*. 7 cm into the flesh, as well as into the right hind leg of the lamb, *c*. 5 cm into the flesh, due to this animal being smaller. The temperature was registered every 20 seconds.[63] In the pig, 28 minutes after setting fire to the pyre, the temperature had reached 150° C, leading to the water in flesh and entrails boiling away and the fat and the meat catching fire. Five minutes later, the temperature had risen to 600° C, while after 35 minutes from starting the fire, the temperature had drastically increased, to reach 820° C. The metal rod registering the measurements in the pig fell out six or seven minutes later, since the flesh had contracted due to the heat, which now registered 975° C.

For the lamb the same process occurred, but it was delayed by around 20 minutes, and a temperature of 100° C was not reached until 38 minutes after the fire was started. The fleece of the lamb apparently worked as a fire blanket protecting the body from the heat of the fire (*Fig. 5*).[64] Five minutes later, the

[59] Sigvallius (1994, 15–32), when placing the rabbits both on top of and inside the pyre, found that the latter clearly was most efficient technique.
[60] For the placement of the tail and the thighbones of the sacrificial animal on top of the wood on the altar, see van Straten 1995, 120 and e.g. V178 fig. 126, V185 fig. 130, V186 fig. 131, V191 fig. 125 and V367 fig. 124; Gebauer 2002, 354–355 and 442–443.
[61] See also the calculations by Bergquist 1988, 32, for the difficulties of approaching large fires. For huge ritual pyres, such as the installation on Mt Oite for the cult of Herakles, see Béquignon 1937, 206–208; Verbanck-Piérard 1989, 58, n. 38.
[62] Hultgård 1987, 90.
[63] I want to thank Frans Herschend for processing the data from the temperature measurements and for discussion of the results.
[64] Sigvallius (1994, 25) when experimenting with the cremation of lambs, noted that the wool was transformed into a thick charcoal layer which protected the meat from burning, and that the placement of the rabbits on top of the pyre (instead of inside it) led to the skin forming

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Fig. 3. Smoke and steam evaporating from the pyre during the first 10 to 15 minutes after the fire was lit. Photograph: John Ljungqvist/Jhonny Therus.

Fig. 4. The pyre after c. *30 minutes. Photograph: John Ljungqvist/Jhonny Therus.*

body of the lamb reached 730° C, and then the metal rod registering the measurements became separated from the lamb as well. The delay in the effect of the fire on the body of the unflayed lamb could support the argument that holocaustic victims were as a rule skinned, unless they were pigs. On the other hand, the difference in time for the lamb to really catch fire when compared with the pig was fairly small, so skinning may rather have been undertaken for other reasons, such as for preserving the hides as an economical commodity.[65]

After about an hour, it became evident that if the animals were to be completely burned, the wood from the original pyre was not sufficient. Since an overall aim of the experiment was to investigate to what extent the cremation process and the disintegration of the pyre affect the preservation or breakage of the bones, we decided not to stir around in the pyre or move the animals to help the fire.[66] Instead, some logs were added manually, although it was still difficult to come close to the fire due to the intense heat. The trunks of the pig and the lamb still contained considerable parts of the flesh after several hours of burning, although now the meat was carbonized

a charcoal layer which insulated the body from the fire and partly prevented the cremation (1994, 20).

[65] For hides as payment to priests, see Tsoukala 2009, 6–10, or kept by the sanctuary or the city as a source of income, see Jameson 1988, 107–112; Rosivach 1994, 48–64.

[66] Stirring and breaking up of the body quickens the process, as is evident from modern cremation practices in India.

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Fig. 5. The pig and the lamb on the pyre after c. *20 minutes. Photograph: John Ljungqvist/ Jhonny Therus.*

Fig. 6. The pyre after c. *one hour. Note the amount of carbonized meat still attached to the bones. Photograph: John Ljungqvist/ Jhonny Therus.*

(*Fig. 6*). After around five hours, the fire was allowed to die out in order for the site to cool off enough for the excavation the following day, and by then most of the meat was gone.

We concluded that the fire was too quick and that it had too little power left when the water had evaporated and the animals finally caught fire. For the meat to be completely burned away, a more consistent fire for a longer time would have been needed, which could be achieved by using a more dense wood burning more slowly and perhaps also a different construction of the pyre, where the animals were covered by the wood. Still, we do not know if a holocaustic sacrifice had to result in the entire animal and all its meat being destroyed by the fire.

The time it took for the bodies to burn and the meat to be destroyed (and not just to catch fire) leads back to the question of to what extent a Greek holocaustic sacrifice meant the complete destruction of the meat of the animals. Judging from the crumbled and cracked stones in the walls of the pits used for holocausts in the Palaimonion, the heat must have been both intense and prolonged, perhaps a suggestion that a successful holocaust meant complete burning.[67] On the other hand, the Palaimonion pits were in use for a long time, *c*. 50 years for

[67] See Broneer 1973, 100–102. In Pit C, the stones had partially been replaced by bricks, which presumably withstood the fire better, but which still became blackened and cracked from the heat.

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each one, so that the heat-marks could be indications of successive intense pyres.

At our experiment, the animals were intact when put on the pyre, unskinned and ungutted. When exposed to the intense heat, the bodies swelled but did not explode, something that has been reported from other cremation experiments.[68] The stomachs burst open from the heat, but the contents immediately coagulated and later caught fire. There was no unpleasant smell, even if the carcasses contained inner organs full of residue and dung, only an intense barbecue sensation, like the one noted at previous experiments when burning tails.[69] We may conclude that there seems to have been no practical or esthetic need to gut the animals before burning them. The carcasses stirred in the fire, due to the heat causing contractions of the bodies, and had the pyre been too small they would have fallen off. A pit would certainly have been useful to control the burning remains.

The first impressions of the fire, the smoke, the smell, and the intensity of the heat were extraordinary, but the process took a remarkably long time to complete. That the burning of an entire animal takes time is not only evident from our experiment, but also clear from Plato's description of the holocaust performed by the kings on Atlantis.[70] The bulls to be burned are cut into pieces and put in the fire, and the kings make a libation and swear an oath, after which they have dinner and conduct their necessary business. It is only when darkness finally has arrived, that the sacrificial pyre has died down, and then the kings sit next to the ashes throughout the night.[71]

In antiquity, when a holocaust was performed in connection with a *thysia*, it therefore seems unlikely that the holocaust could have been completely finished, that is, the animal completely consumed by the fire, before the *thysia* was started, or the ritual complex would have lost in momentum when the participants had to stand and watch the fire burn.[72] The time a completed holocaust takes is therefore intriguing. If sheep, goats and cattle were flayed, the intestines removed and the body cut into parts, the process would be quicker, but not very much so, as the same major investment as to time and wood would still be needed in order for the meat to burn.

Why holocausts?

What conclusions may we draw from this experiment in the light of our ancient evidence for burning the body of the sacrificial animal? Skinning and gutting seem to have had only marginal effects on the efficacy of the burning process, so these actions were rather undertaken for ritual or economic reasons. The dominant impression of the experimental holocaust was the time it took to burn the meat. Admittedly, ancient people sacrificing surely had better techniques and the use of different kinds of wood, building the pyre over a pit, and placing the animals inside the pyre all would have improved the efficacy of the fire.

Still, the experiment makes me doubt if the important element at a holocaust was to burn *all* the meat, that is, to make it all disappear in smoke. When holocausts were combined with *thysiai*, could it be that the important action was to start the holocaust, make the water evaporate as smoke and see something happen with the burning bodies, and then the *thysia* could begin and even be concluded while the holocaust still was going on?[73] The essential element of the holocaust may have been to present the animal to the deity and start the fire, which would transfer the offerings to the gods, and, perhaps more importantly, to burn them enough to assure that the meat could not be eaten by the humans present. Once that stage was reached, the pyre could be left to die down by itself. The element *holos* of the holocaust would then not necessarily mean a total annihilation of the meat, but its complete transformation beyond human means of consumption, just as a holocaust did not always have to include the entire animal when the skin had been removed.

If we consider why holocausts were performed, in many cases we do not know, but when there is more information, they often seem to have been confined to particular contexts when a problem had to be dealt with, a kind of crisis management, such as purifications of sanctuaries after the removal of a human corpse.[74] In the *Anabasis* (7.8.4), Xenophon performs a holocaust of piglets to Zeus Meilichios in a pressed situation, when he has run out of money. Pausanias tells the story of how the institution of a holocaustic sacrifice placated the anger of the children who were lynched by a mob in the city of Kaphyai, and whose death had caused crop failure and miscarriages.[75] The burning of the animals apparently removed the problem and solved the difficulties of the situation. Holocausts were also performed to evoke or ritually recognize a

[68] Sigvallius 1994, 20–21.
[69] Personal observation by the author.
[70] Pl. *Criti.* 119e–120b. The term used is *kathagizein*.
[71] Also Leviticus (6:9–10) points to the duration of the *ôlah*, during which the animals are to lie on the altar all night until morning while the fire is kept burning.
[72] One way of handling the extended time of a holocaust would be to perform this ritual on a separate day from the *thysia*, as was the case for the sacrifice to Zeus Machaneus on Kos, see *CGRN* 86, D lines 10–16. On the other hand, this seems to be the only example of such a separation in time in our extant evidence.
[73] A parallel execution of rituals can also be argued for in the case of *trapezomata*, the display of raw body parts for the gods at a *thysia*, an action, which presumably was ongoing while the god's portion was burned on the altar, see Ekroth 2011, 27–28. Also *theoxenia* could have been performed in tandem with *thysia*.
[74] See Ekroth 2017a, 50; 2018, 313–315.
[75] Paus. 8.23.7.

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particular aspect of the divine recipient, particularly his or her link to the realm of the dead, as well as to deal with the pollution that death was taken to cause in ancient Greek culture.[76] To handle a crisis and appeal to the dangerous and uncanny side of the recipient often seems to have gone hand in hand with the burning of an entire animal. What seems to be at play here is the fact that the holocaust does not result in a meal. At sacrifices to some divinities, lack of consumption was essential and there was no desire to eat the flesh. The holocaust of a black bull to Boubrostis in Smyrna may have served to avert a crisis in the form of a famine: not to consume the meat from an animal sacrificed to a deity or demon designated "The ravenous appetite" or even "Hunger" appears to conform to a certain logic. To burn the meat enough to make it inedible for the human participants would have both underlined the aim of the ritual and assured its efficacy.

Finally, the link of holocausts in Greek religion with particular contexts of crisis and purification, or aspects of death and pollution in the recipient, may suggest that a prolonged ritual served a specific purpose simply because it took time to deal with such grave matters. A holocaust was perhaps meant to be lengthy, a ritual one had to go through or even "suffer through", to watch and experience for a long time, in order for the ritual to be efficient and fulfil the particular purpose. The time it would take to perform a holocaust can be compared with the brevity of the *hiera kala* at a *thysia*, the most common kind of ritual when communicating with the divine sphere, which seems to have been finished within less than 15 minutes.[77]

To conclude, holocausts, moirocausts and *thysiai* interacted to modify, complement or even exclude each other depending on how the animal's body was handled and what purpose the ritual was meant to achieve. In order to understand this complex pattern, we have to continue to explore the ancient source material in detail, making use of all the evidence at hand, though still respecting the particularities and possibilities of each category of sources. Even then, the ritual reality may still be beyond our grasp.

GUNNEL EKROTH
Department of Archaeology and Ancient History
Uppsala University
gunnel.ekroth@antiken.uu.se

[76] Ekroth 2002, 74–128 and 219–221. For the impurity of death, see Parker 1983, 32–48.
[77] This has been shown by the experiments by Jake Morton and Dan Diffendale: see Morton 2015 and also Morton in this volume, *Chapter 2*.

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ALICE MOUTON

13. Burnt animals for the Hittite gods

Cremation as a type of animal sacrifice in Hittite Anatolia

Abstract

The aim of this paper is to provide an overview of the Hittite textual evidence (Anatolia of the 17th–12th centuries BC) for sacrificial cremation of animals or animal body parts. Besides several occurrences of Hittite verb *warnu-*, "to burn", the Hurrian term *ambašše* "(something) that is burnt" is examined in context. Sacrificial cremation occurs during various types of rituals: invocations, substitutions, and others. In the form of the *ambašše* rite, it originates from Kizzuwatna, a region of Southern Anatolia that was under Hittite rule at least since the 16th century BC. Twenty-two excerpts of Hittite cuneiform texts are provided in order to illustrate the great variety of burnt sacrificial procedures.

Keywords: Anatolian religions, Hittite cuneiform texts, Hurrian vocabulary, Kizzuwatna, ritual, animal sacrifice, purification, burning, holocaust, fat, invocation rituals, substitution rites, horses and royalty

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Central Anatolia was the seat of the Hittite kingdom, a powerful political entity that prospered between the 17th and the end of 12th centuries BC. The thirty thousand fragments of cuneiform tablets uncovered in Hattuša/Boğazkale, the capital city, document many aspects of the main ritual traditions of Hittite Anatolia. The main ritual traditions which are described by the Hittite cuneiform texts are (cf. the map in *Fig. 1*): I. The Hatto-Hittite ritual traditions with an important Hattian cultural background (central Anatolia); II. The Luwian ritual traditions (the Lower Land in central-southern Anatolia and Arzawa in western Anatolia); III. The Kizzuwatnean ritual traditions (southern Anatolia).

Animal sacrifice is at the center of the ancient Anatolian religions.[1] The Hittite sacrificial modalities are numerous.[2] One possible way of sacrificing is to burn the sacrificial victim. The Hittite vocabulary distinguishes an animal that is being burnt (the verb *warnu-*) from an animal whose body is cooked (the verb *zanu-*). Whenever the animal is cooked (entirely or partially), it is retrieved afterward from the grill or the pot and then offered to the deity.[3] Differently, the Hittite texts very seldom mention that the burnt animal victim is collected afterward in order to be placed on the divine table.

That being said, we do not yet have a clear overview of the various modalities of burnt animal sacrifices in Hittite Anatolia, and this is precisely the aim of the present paper. This study does not pretend to be exhaustive: very many Hittite texts deal with burnt animal sacrifices. Therefore, I have made a selection of texts that seemed the most evocative. In making this selection, I looked for two main keywords: the Hittite verb *warnu-* "to burn" with an animal as a direct object, in a clear context of sacrifice, and the Hurrian noun *ambašše* "(something) that is burnt".[4]

Burning is not always about sacrificing. In some ritual contexts, one burns animal body parts without offering them to a

[1] For recent overviews on Hittite religion, see Hutter 2021 and Rutherford 2020.

[2] For my definition of sacrifice, as well as an overview on Hittite animal sacrifice, see Mouton 2017.

[3] See Mouton 2007, 86–88.

[4] I was able to compile all the attestations of the Hittite verbs *war-* "to burn" (intransitive) and *warnu-* "to burn" (transitive) at the Akademie der Wissenschaften of Mainz in November 2016. I would like to thank Prof. Gernot Wilhelm, Prof. Daniel Schwemer and their whole team for allowing me to use their files and for welcoming me so nicely every year. Due to my collations (from photographs) of all the tablet excerpts that I quote in this paper, my readings might vary from the previous editions. In the following excerpts, English words in italics are hypothetical translations.

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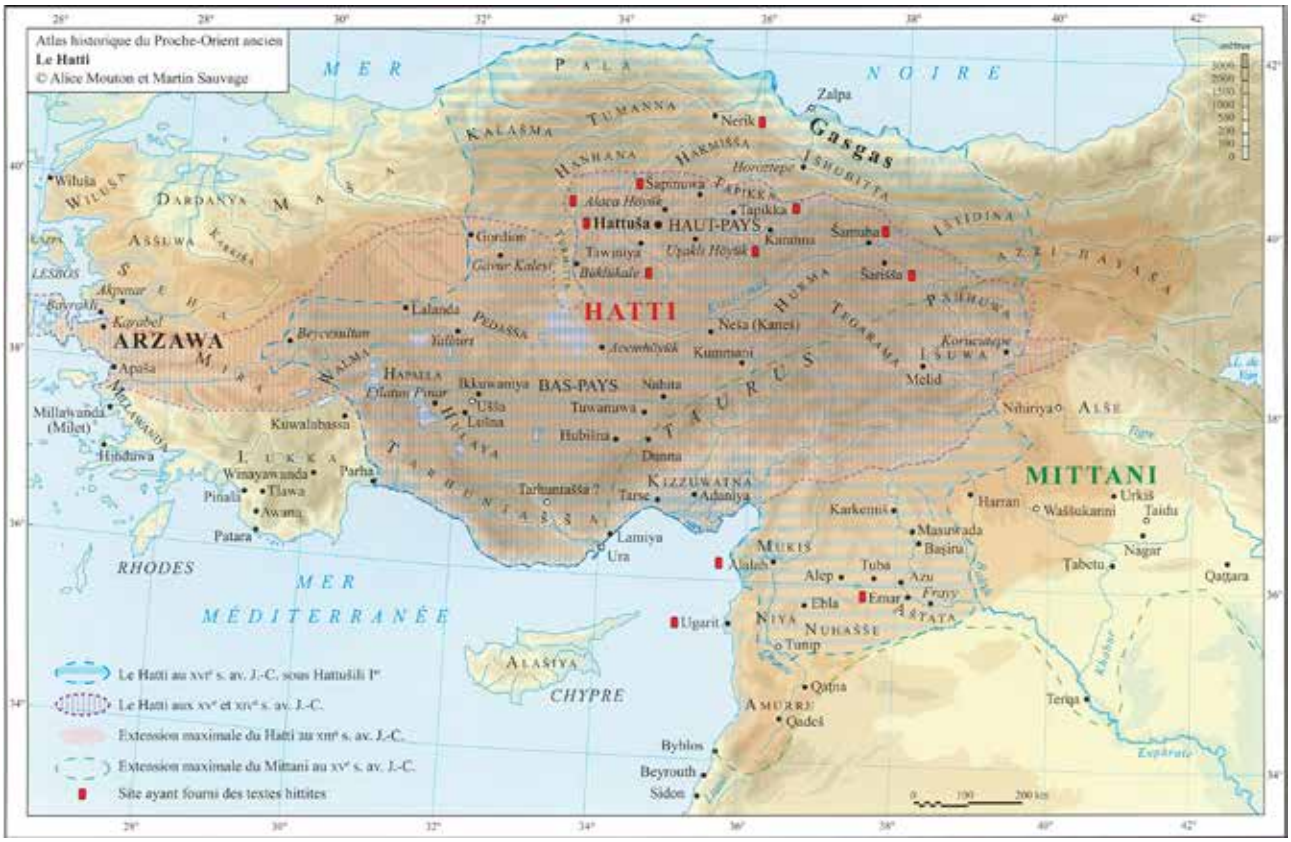

Fig. 1. Map of Hittite Anatolia. © Alice Mouton & Martin Sauvage.

deity. This is the case in the text of a ritual against an evil bee. Animals are sacrificed in a fragmentary passage of the text, and then we read:

> **Excerpt 1:** They eat (and) drink. They burn the bones [entire]ly. Then he/she (i.e. the unknown ritual expert) collects them. He/she goes and leaves them behind into the watercourse. He/she says: "As soon as this (is) burnt, the watercourse will carry it (out)." He/she also picks up the (figurine of) the evil tongue (saying): "Let them (i.e. the miasma provoked by the evil tongue) be ash(es) likewise, so that the watercourse will carry them out.[5]

In this sequence, the burning and disposal of the animal bones are mainly used as an analogy for the disposal of the miasma provoked by the "evil tongue", i.e. the evil speech that the ritual practitioner is trying to neutralize. In this particular case, the burning is not a way to offer the animal parts to a deity.

Similarly, burning an animal can be a way of getting rid of a substitute. The text of a ritual against impurity in the royal couple states, for example:

> **Excerpt 2:** [Wh]en the Old Woman (i.e., the ritual expert) [fin]ishes performing (the preceding rite), hearths [of wo]od (have) already (been) prepared especially (for this occasion) in an uncultivated place; there, they burn [*a piglet*], a sheep, a donkey (and) a puppy. § When the Old Woman finishes [tre]ating (ritually) the king (and) queen, the king (and) queen go to the huts to [b]athe and they bathe. They pour the remnants of the ritual (substitution) into a small pot and they bury it in an uncultivated place.[6]

[5] KBo 11.10 + ii 7'–13' with duplicate KBo 47.209 + ii 14'–18' (CTH 447; Görke & Melzer 2015, § 15'"): [(*nu ada*)]*nzi akuwanzi haštai=ma* (dupl. [*ḫ*]*ašdai(=)*[...]) [*arḫ*]*a warnuwanzi n=at šarā* [(*d*)]*āi n=at paizzi* I_7*-i* EGIR-*an tarnai nu kiššan memai kī maḫḫan urīnan n=at* I_7*-aš pēdai* HUL-*un=(n)a* (dupl. *ida*[*lun=(n)a*]) EME-*an šarā dāi n=aš QĀTAMMA hāš kišaru n=at* I_7*-aš parā pēdāi.* A similar sequence also occurs in § 26'".

[6] KUB 58.83 ii 6–15 and duplicates Bo 3505 Obv. 2'–4' and IBoT 3.114 i 1'–2' (CTH 418; Popko 1991, 46 and García Trabazo & Groddek 2005, 214–215): [GIM]-*an=ma=kan* ^{MUNUS}ŠU.GI *aniyauwanzi* [*āšš*]*anuzzi arḫayan=ma dammeli pe*[*d*]*i* [*ŠA* GI]Š-*ŠI* GUNNI^{MEŠ} *karū handanteš* [ŠAH.TUR^{2}] UDU ANŠE UR.TUR *apiya warnuwanzi* §

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This excerpt seems to relate the cremation of the animals with the ritual treatment of the royal couple, for it is directly followed by a royal cleansing. Furthermore, the piglet, the donkey, and the puppy are most often used as substitutes in Hittite rituals. In this context, the animal substitutes do not seem to be offered to a particular deity. In contrast (see below), we will examine texts in which burnt animals combine the function of substitutes with that of sacrificial victims. Although the text is vague, by "remnants of the ritual" (Hittite *kuptar*), it might designate the remnants of the burnt animals. Their burying into the ground confirms their function as substitutes, for such a disposal technique is widespread in Hittite ritual texts.[7]

Hurrian *ambašše*

In Kizzuwatnean contexts (Southern Anatolia), burnt sacrifice is called *ambašše*.[8] The Hurrian term *ambašše* most certainly means "(something) that is burnt", as it can be interpreted as *amb=a=šše*, where *amb-* is the verb "to burn" and *-a=šše* might be a nominalizing suffix.[9] Moreover, the fact that the *ambašše* sacrifice consists of a burnt offering is attested, among other texts, by a passage of a text describing the Kizzuwatnean *hišuwa*-festival, in which we read:

> **Excerpt 3:** [When My Sun[10] hi]mself leaves, he burns horses (as) an [*ambašš*]*e*-sacrifice to the deity, and he sacrifices [eight sheep an]d [one cow] for his health.[11]

In the light of a passage of a text relating to the cult of the city of Nerik, we also understand that the Hurrian term *ambašše* designates both the burnt sacrifice and the place or, rather, the burning device (a movable hearth) where such a sacrifice occurs:[12]

> **Excerpt 4:** When the evening comes, the *šankunni*-priests (and) the *haruspex* go down. They set up an *ambašše*-sacrifice in the (precinct of the) *dahanga*-temple, (i.e.) they burn entirely the consecrated meat cuts. Let them always burn (the consecrated meat) on top of the *ambašše*-sacrificial hearth that they have built according to the palace('s orders). However, they should not go near the *dahanga*-temple (itself).[13]

This excerpt presents several philological difficulties. First, the text does not specify what is meant by "in/near the *dahanga*-temple". I suspect, in the first occurrence, a very generic acceptation of the term for designating the precinct of that temple as a whole. This interpretation presents the advantage of being compatible with the second occurrence of the temple name, where the text seems, on the contrary, to refer to the building of the *dahanga*-sanctuary itself. The second philological difficulty of this excerpt lies in the use of the verbal form *ueter*, which has been understood in two different ways. Some researchers[14] have considered it to be a form of the Hittite verb *wida-*, *weda(i)-*, "to bring", whereas others[15] have seen the verb *weda-*, *wet(e)-*, "to build". Both verbs indeed take a 3rd pers. pl. pret. in *u/weter* according to Ünal's dictionary.[16] However, *ueter* is most frequently used in the Hittite texts to mean "they built", whereas its use for representing the verb "to bring" seems much rarer, as far as I can see. Alwin Kloekhorst does not even mention *ueter* in his list of forms of *wida-*, *weda-*.[17] This excerpt also illustrates the possibility of burning the *šuppa*, i.e. the consecrated meat cuts instead of the whole animal.

Another testimony of the ambivalence of the Hurrian noun *ambašše* is an excerpt of an oracular report:

> **Excerpt 5:** As they wrote to me from the palace about the matter of a sacrilege, it was determined by oracle (that

[*n=ašt*]*a* GIM-*an* ^{MUNUS}ŠU.GI LUGAL MUNUS.LUGAL [*an*]*iyauwanzi āššanuzi* [*nu=za=ka*]*n* LUGAL MUNUS.LUGAL ^{GIŠ}ZA.LAM.GAR-*aš* [*w*]*arpūwanzi pānzi nu=za warpanzi* [(*n*)]*=ašta kuptar ANA* ^{DUG}ÚTUL TUR *anda lahūwānzi* [(*n*)]*=an dammeli pedi hariyanzi*. At [*w*]*arpūwanzi*, the scribe mistakenly used a NU sign instead of a U sign, thus writing [*w*]*a-ar-pu-nu*$^{(sic!)}$*-wa-an-zi*, as if he was confused between a form of *warpu-* "to bathe" and one of *warnu-* "to burn" (a verb that he had written in the previous paragraph!).

[7] Mouton 2019.

[8] See also Strauß 2006, 113–118. The *ambašše* burnt sacrifice includes also foodstuffs, such as bread, flour, honey, etc.; see Haas 1994, 664.

[9] Laroche 1968, 455. The *-a* could be the mark of intransitivity, according to Schwemer 1995, 85. For this Hurrian term, see also *HW*^{2} A, 68–69.

[10] "My Sun" is the most usual title of the Hittite Great King.

[11] KBo 34.235 iii 6'–8', restored thanks to parallel KBo 42.75:3'–5' (CTH 628; Wegner 2002, 95): [*mān* ^{D}UTU-*ŠI a*]*pāšila paizzi nu ANA* DINGIR-*LIM* ANŠE.KUR.RA^{HÁ} (var. ANŠE.KUR.RA) [ambašš]*e warāni* keld(i)=i=a=*ma=kan* [8 UDU^{HÁ} 1 ^{GU4}ÁB=*y*]*a šipanti*. For this analysis of Hurrian *keld(i)=i=a* as *keldi* + *-i* the possessive pronoun of the 3rd pers. sg. + *-a* of the essive, see Haas & Wilhelm 1974, 133–134. For a possible identification between the double sacrificial ritual *ambašše* and *keldi* with West Semitic designations, see Schwemer 1995.

[12] *Pace* Haas 1994, 661 and *HED* A, 49. The *ambašše*-sacrificial device can be "raised" (*karp-*) or "lowered down" (see below).

[13] KUB 56.49 i 6'–12' and duplicates KUB 56.49 ii 3–9 and KBo 2.4 iii 1'–7' (CTH 672; Součková 2010, 290; Tischler 2016, 89; *CHD* Š, 415): *mahhan=ma nekuza mehur tiyazi nu=kan* $^{LÚ.MEŠ}$SANGA ^{LÚ}HAL *katta* [(*p*)]*ānzi nu INA* ^{NA4}*dahanga* am.-ši-*in harpanzi šuppa arha warnuwanzi* am.-ši-*in=ma IŠTU* É.GAL-*LIM kuin* (dupl. am.-ši-*in=ma k*[*ui*] *n* [(*l*)]*ŠTU* É.GAL-*LIM*) *ueter nu=kan apēdani šer warnuškandu ANA* <<NA$_4$>> ^{NA4}*dahanga=ma=at maninkuwan lē pānzi*.

[14] *HW*^{2} A, 68; *HED* A, 49; Součková 2010, 283; Lamante 2014, 439.

[15] Haas 1970, 293; *CHD* Š, 415, and myself in the present paper.

[16] Ünal 2007, 803 and 805.

[17] Kloekhorst 2008, 1009.

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> it was) a sacrilege (perpetrated) in the temple of Ištar of Niniveh, so that we have interrogated the men of (that) temple. They (said): "A dog went up to the porch and reached the *ambašše*-sacrificial hearths. They killed it in the porch itself." Is it because of that that you, deity, are angr[y]?[18]

In the light of these last two testimonies, it appears that *ambašše* designates both the burnt sacrifice and the burning device upon which such a sacrifice occurs.

Places of burnt animal sacrifice

Excerpts 4 and **5** show that the *ambašše* burnt sacrifice usually occurs inside the sacred section of a temple. **Excerpt 5** specifies that the porch of the temple is an appropriate place for it. However, according to the text of Ammihatna, Tulbi and Mati's purification ritual of a temple, that location might vary according to the context and probably also according to its function:

> **Excerpt 6:** Afterward, they consecrate (again) the deity with water of purification: § they sprinkle (it on) the temple. § Afterward, they burn two big birds before the door of the temple for his (i.e. probably the person responsible for the temple's profanation) offence (and) his fault. § Two big birds inside (of the temple): they burn (them) inside the temple for his (i.e. the deity's) *tuwandihi* (and) his pacification. § One lamb. They burn (it) inside the temple for his health (and as) an *ambašše* burnt sacrifice. § They sacrifice one sheep for his health.[19]

If the translation of the Hurrian terms is correct, the text seems to make a distinction between the burnt sacrifices made for the benefit of the deity whose temple has been profaned and those made for neutralizing the profanation itself. Indeed, the first two birds are burnt at the door of the temple because of the profaner ("for his offence [and] his fault"), whereas the next two birds are burnt inside the temple for pacifying the defiled deity ("for his *tuwandihi* [and] his pacification"). The lamb that is also burnt inside the temple might be for the deity's recovery ("for his health [and as] an *ambašše* burnt sacrifice").

As we have already seen in the previous section, the area of the porch of the temple seems to be one of the adequate places to set the *ambašše*-sacrificial hearth, as the following passage of a Kizzuwatnean festival text also shows:

> **Excerpt 7:** The king dedicates to the Storm-god one bull, one calf [and] one sheep (as) an *ambašše* burnt sacrifice. They burn the calf and the sheep in front of the Storm-god, but they burn the bull in the porch of the Storm-god.[20]

One could wonder whether the greater proximity of the calf and the sheep to the image of the Storm-god implies a greater degree of sacrality of those sacrificial victims. If not, the change of location of the burnt sacrifice of the bull, the traditional animal-attribute of the Storm-gods, is probably meaningful in one way or another. Although the text does not provide any clues, it might have something to do with the size of the animal to incinerate.

Entire or in bits?

Until now, we have mostly looked at whole animals being burnt in sacrifice to the gods. The text of Pāpanikri's birth ritual from Kizzuwatna shows a different procedure:

> **Excerpt 8:** Afterward, the *patili*-ritual practitioner takes one big bird, one big bowl of *šampukki*-stew, three loaves of *harašpawant*-bread (and) one loaf of *aladdari*-bread of half a handful. Then he dedicates (them) to the Storm-god for her[21] health and her prostration. He removes the heart of the bird and throws it into the fire. (Then) he puts all (of it; i.e. the heartless carcass of the bird?) back (in front of) the Storm-god.[22]

[18] KUB 5.10 + Obv. 19–23 (CTH 567; partially in Wegner 1981, 140–141): *IŠTU* É.GAL-*LIM=ma=mu kuit* INIM *maršaštarraš hatrāer INA* É.DINGIR-*LIM* ^{D}*IŠTAR* ^{URU}*Ninuwa=kan maršaštarriš* SIxSÁ-*at nu* LÚ^{MEŠ} É.DINGIR-*LIM punuššūēn UMMA ŠUNU=(M)MA* UR.GI$_7$*=wa=kan* ^{É}*hilamni* UGU *pait nu=war=aš ambaššiyaš kattan āraš n=an=kan* ŠÀ ^{É}*hilamni=pat kuēnnir* DINGIR-*LUM=za apaddan šer* TUKU.TUKU-*uwa*[*nza*].

[19] KBo 23.1 + ii 4–16 and duplicates KUB 30.38 + iv 23–37 and Bo 3964 iv 1' (CTH 472; Strauß 2014, § 27–34 and Miller 2009, 150): EGIR-*anda=ma* DINGIR-*LAM šehelliyaš uetenit* (dupl. *uitinit*) *šuppiyahhanzi* § É.DINGIR-*LIM=ya papparaššanzi* § EGIR-*anda=ma* 2 MUŠEN.GAL *ŠA* É.DINGIR-*LIM* KÁ-*aš peran* parl(i)=i=a arn(i)=i=a *warnuanzi* (dupl. *wahnuwa*[*nzi*]!) § 2 MUŠEN.GAL*=ma=kan andurza INA* É.DINGIR-*LIM=kan anda* tuwandih(i)=i=a enumašš(i)=i=a *warnuanzi* (dupl. [*w*]*arnuwanzi*) § (dupl. § omis) 1 SILA$_4$*=ma INA* É.DINGIR-*LIM=kan anda* keld(i)=i=a ambašše *warnuanzi* (dupl. *warnuwanzi*) § 1 UDU *ANA* keld(i)=i=a *šipandanzi* (dupl. BAL-[*an*]*zi*).

[20] KUB 41.48 iii 10'–15' (CTH 705; Haas 1998, 139): *n=ašta* LUGAL-*uš* 1 GU$_4$.MAH 1 AMAR 1 UDU=[*ya*] *ANA* ^{D}U ambašši *šipanti nu* 1 AMAR 1 UDU=*ya PANI* ^{D}IM *warnuwanzi* GU$_4$.MAH*=ma=kan ŠA* ^{D}IM ^{É}*hilamni anda warnuwanzi.*

[21] For the pregnant woman who is the ritual patron.

[22] KBo 5.1 iii 10–16 (CTH 476; Mouton 2016, 272–273, § 27): EGIR-*pa=ma=z* ^{LÚ}*patiliš* 1 MUŠEN.GAL 1 ^{DUG}DÍLIM.GAL ^{TU7}*šampukkiyaš* 3 ^{NINDA}*harašpauwanduš* 1 ^{NINDA}<*a*>*laddarin ŠA ½ UPNI dāi nu ANA* ^{D}IM keld(i)=i=a kunz=ag=ašš(e)=i=a *šipanti n=ašta ANA* MUŠEN

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The text does not explain why the ritual expert has to remove and throw the bird's heart into the fire. Although probable, the sacrificial character of such a gesture remains ambiguous, because of the use of the verb *peššiya-* "to throw". Note, however, that *peššiya-* is found in connection to an animal sacrifice in the text of a ritual to the divine Heptad, for example:

> **Excerpt 9:** The AZU ritual practitioner holds a kid-goat forward. Whoever stands in front (of the kid-goat) dedicates it. § The AZU ritual practitioner strikes the kid-goat's neck with a stick and then he kills it. He throws it onto the grill.[23]

In the light of this excerpt, it seems that the act of throwing an animal or one of its body parts into the fire/onto the grill (Hittite *happina-*) is a way of sacrificing it. There is a proximity between such an act and the well-known act of cooking sacrificial meat on the grill. This excerpt shows that the distinction between burning and cooking a sacrificial animal is not always clear.

Animal fat is often burnt during the ceremonies. Here is an example in a fragmentary ritual text:

> **Excerpt 10:** The sheep fat of [...] burns on the grill [...].[24]

This passage can be compared with a mention that occurs here and there in the religious texts, such as in the following text of a ritual for the Sungoddess of the earth:

> **Excerpt 11:** They bring one sheep. The Old Woman dedicates it to the Sungoddess of the earth, and they slaughter it into a pit. They let the blood flow down into (the pit). § Afterward, they bring one billy goat. The Old Woman dedicates it to the Sungoddess of the earth and to the male deities, and they slaughter it into the pit. They let the blood flow down into (the pit). § Then, they cut them (i.e., the sheep and the billy goat) up together with (their) heads (and) feet. While the fat is being cooked, the people dig (another) pit.[25]

Once more cooking and burning the animal fat seem almost interchangeable. The text of a Kizzuwatnean ritual for settling the goddess of the night in a new temple mentions a similar event, with an interesting specification:

> **Excerpt 12:** The fat (of the sacrificed sheep) burns out; no one eats it.[26]

This passage seems to indicate that, in this particular context, the sheep's fat is supposed to be consumed only by the goddess, as no human participant is allowed to partake in it. A fragment of a ritual text shows that the skin and the bones of a sacrificial animal can also be burnt:

> **Excerpt 13:** [*Afterwar*]*d*, they place the bones and the skin (of) the lamb in one single place [and l]ater they burn (them) entirely.[27]

Just like in the case of **Excerpt 8**, one can wonder whether this passage actually describes a burnt sacrifice. This shows that the texts are not always explicit about the ritual function of burning animals or animal body parts.

Ritual contexts

Although the texts do not always allow us to determine the ritual function of burning an animal or its body parts, we can sometimes observe the ritual contexts in which such burning sequences occur.

INVOCATION RITUALS

In the sequence of a Kizzuwatnean invocation ritual for a group of deities, we read:

> **Excerpt 14:** When they are finished (with the previous rite), they lift the deities and they place them there, at the location of the watercourses. He (i.e., the ritual expert) burns two birds and nine loaves of thin bread (as) an *ambašše* burnt sacrifice to the nine watercourses. He sacrifices also three birds and nine loaves of thin bread for his[28] health. Then he pours all (of it) into (the watercourses) in the same way (as before) and he makes a libation. He makes also a libation to the male deities in the same way. They draw paths of barley purée in the same way, they

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[UZU]ŠÀ *šarā dāi n=at=šan* IZI *peššiyazi huma(n)=(š)šan* EGIR-*pa ANA* [D]IM *dāi.*

[23] KUB 9.28 ii 11'–16' (CTH 442): MÁŠ.TUR [LÚ]AZU *parā ēpzi nu hānza kuiš arta n=an=kan šipanti* § [LÚ]AZU *ŠA* MÁŠ.TUR GÚ=*ŠU* GIŠ-*ruit walahzi n=an=kan kuinzi n=an anda happina piššiyaizzi.*

[24] KBo 55.84 i 10–11 (CTH 470): [...]-*yaš* [UZU]Ì.UDU [...] *happini urāni.*

[25] KUB 55.45 + ii 4–11 (CTH 448): *nu* 1 UDU *ūnniyanzi n=an=kan* [MUNUS]ŠU.GI *taknaš* [D]UTU-*i šipanti n=an=kan* ÉSAG-*ni kattanta hattanzi nu=kan ēšhar kattanda tarnanzi* § EGIR-*anda=ma* 1 MÁŠ.GAL *ūnniyanzi n=an=kan* [MUNUS]ŠU.GI *taknaš* [D]UTU-*i* DINGIR[MEŠ].LÚ[MEŠ]=*ya šipanti n=an=kan* ÉSAG-*ni kattanda haddanzi nu=kan ēšhar kattanda tarnanzi* § *namma=aš=kan QĀDU* SAG.DU[MEŠ] GÌR[MEŠ] *markanzi nu kuitman* [UZU]Ì *zeyari* ÉRIN.MEŠ=*az=ma* ÉSAG *paddāi.*

[26] KUB 29.4 iv 40–41 (CTH 481; Mouton 2016, 372–373, § 33): [UZU]Ì=*ma arha warāni UL=at kuiški ēzzazzi.*

[27] KBo 13.164 iv 1–2 (CTH 470): [EGIR-*p*]*a*[?]-*ma haštai* KUŠ SILA$_4$=*ya* 1-*edani pēdi tianzi* [*nu a*]*ppezziyan arha warnuwanzi.*

[28] Probably the ritual patron's health.

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> break loaves of thin bread on top (of them) (dupl. adds: 'and they make a libation [on it] too'). Then they invoke the deities through the watercourses.[29]

In this passage, the *ambašše* sacrifice of birds and bread is addressed to the watercourses that will serve as pathways to attract the deities the ritual expert invokes.[30] The burnt sacrifice is not only performed in honor of those watercourses, its remains are also poured into the watercourses, to make sure that they reach the invoked deities. **Excerpt 1** also described a watercourse as a vehicle of burnt animal parts, although differently: only the bones were used, whereas the whole burnt animals seem to be thrown into the water in **Excerpt 14**.

The text of another Kizzuwatnean ritual states:

> **Excerpt 15:** They open an *āpi*-pit. Then, he (i.e., the ritual expert) sacrifices one big bird for smearing (its) blood onto the *āpi*-pit. § [Afterw]ard, he burns one big bird, three loaves of thin bread, plant oil, honey and a little bit of wine into the *āpi*-pit. Afterward, he sacrifices one big bird, three loaves of thin bread, plant oil, honey and a little bit of wine into the *āpi*-pit for his[31] health. Afterward, he breaks seven loaves of thin bread (over) the *āpi*-pit and then he throws them into the *āpi*-pit. He also makes a libation of wine into the *āpi*-pit afterward. § Afterward, he takes a little bit of fine oil, and red wool is deposited inside (the *āpi*-pit), so that he invokes the deity from the *āpi*-pit.[32]

The act consisting of smearing animal blood on a ritual place or item is a Kizzuwatnean ritual technique for consecrating that place or item.[33] The *āpi*-pit serves as a receptacle of a burnt sacrifice composed of a bird and other foodstuffs. The cremation itself occurs inside the pit. The latter functions as an access to the beyond.[34] The path itself goes through the pit. It is materialized by the red wool and the fine oil placed inside the pit, so that the invoked deity can come out of the pit into the realm of the human beings. Just like in **Excerpt 14**, the burnt sacrifice is physically placed on the path through which the deity is attracted. This probably illustrates the attractive character of such a sacrifice, although an unburnt sacrifice would also function in the same way.[35]

Burning items, and not only offerings, is also a way to send them to the beyond, as is shown in several passages of the text of the Hittite royal funerary ritual. Here is one of these passages:

> **Excerpt 16:** They smash [the vessel of bee]r (and) the vessel of wine[36] and, at that place, they burn the hoe (and) the spade.[37] They collect the ashes and they pou[r] them where the heads of the horses (and) [the heads] of the oxen have been burnt.[38]

The items and the animal heads that are being burnt probably represent the equipment (agricultural tools, ride, and cattle) that the deceased king or queen will need in his or her new resting place, a place called "the meadow" in the text. Just like the royal body has been cremated on the first day of the funerary ritual, these items are burnt, so that they can join the deceased on his or her voyage. The fact that the (heads of) the horses and oxen accompany the deceased to "the meadow" is explicitly expressed a bit further in the text:

> **Excerpt 17:** May the oxen and sheep, the horses (and) mules graze in this meadow for him/her![39]

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[29] KUB 15.31 iii 56–65 and duplicate KUB 15.32 + iv 14–21 (CTH 484; Fuscagni 2016, § 22'): *nu mahhan zinnanzi nu* DINGIR^{MEŠ} *šarā karpanzi n=aš apiya=pat* $I_7^{MEŠ}$*-aš pēdi tienzi* (dupl. [*t*]*ian*[*zi*]) *nu ANA* 9 $I_7^{MEŠ}$ 2 MUŠEN (dupl. 2 MUŠEN^{HÁ}) 9 NINDA.SIG^{MEŠ}*=ya* ambašše *warāni* keld(i)=i=a=*ya* 3 MUŠEN (dupl. 3 MUŠEN^{HÁ}) 9 NINDA.SIG^{MEŠ}*=ya šipanti anda=ya=kan hūman QĀTAMMA išhūwāi* (dupl. *išhuwai*) *šipanti=ya* DINGIR^{MEŠ}.LÚ^{MEŠ}*=ya=(š)šan QĀTAMMA šipanti ŠA* BA.BA.ZA=*ya* KASKAL^{MEŠ} *QĀTAMMA hūittiyanzi* (dupl. *hūittiyazi*) *nu=(š)ša*<*n*> NINDA.SIG^{MEŠ} *paršiyanzi* (dupl. adds: *šipan*[*d*]*anzi*) *nu* DINGIR^{MEŠ} $I_7^{MEŠ}$*-az hūittiyanzi* (dupl. *huittiyanzi*).

[30] Concerning watercourses as pathways into the divine realm, see also Erbil & Mouton 2012.

[31] For the ritual patron.

[32] KBo 24.45 + Rev. 11–17 and duplicates KBo 27.202 + iii 8'–18' and KBo 59-52:6'–7' (CTH 479; Ünal 2017, § 13'–14'): *nu āpi kinuanzi* (dupl. *kinuwanzi*) *namma āpiti ēšharnumāuwanzi* 1 MUŠEN.GAL *šipanti* (dupl. BAL-*an*[*ti*]) § [EGIR=*Š*]*U=ma āpiti* ambašše 1 MUŠEN.GAL 3 NINDA.SIG Ì.GIŠ LÀL GEŠTIN=*ya tepu warāni* EGIR=*ŠU=ma āpiti* keld(i)=i=a 1 MUŠEN.GAL 3 NINDA.SIG Ì.GIŠ LÀL GEŠTIN=*ya tepu šipanti* EGIR=*ŠU=ma āpiti* 7 NINDA.SIG *paršiya n=at=kan āpiti kattanda išhuwāi* (dupl. *išhūwa*[*i*]) GEŠTIN=*ya=kan* EGIR-*anda āpiti anda šipanti* § EGIR=*ŠU=ma=za* Ì.DÙG.GA *tepu dāi anda=ma=kan* SÍG SA_5 *kittari n=ašta* DINGIR-*LAM āpitaz huittiyazi.*

[33] Mouton 2014a.

[34] See Mouton 2019.

[35] Mouton 2019.

[36] These vessels were probably emptied earlier in the ritual.

[37] The same items plated with silver are mentioned earlier in the text.

[38] KUB 34.65 + i 28"–30" and duplicate KUB 39.36 + i 4"–7" (CTH 450; Kassian *et al.* 2002, 380–381): [DUG KA(Š D)]UG GEŠTIN *arha duwarnanzi* (dupl. *duwarnia*[*nzi*]) ^{GIŠ}AL=*ma* ^{GIŠ}MAR *a*[(*pēdani pēdi w*)]*arnūwanzi* (dupl. *warnuwan*[*zi*]) SAHAR^{HÁ}*-uš=ma šarā danzi* (dupl. *dānzi*) *nu* SA[(G.DU^{MEŠ} ANŠE.KUR.RA^{MEŠ}) SAG.DU]^{MEŠ} $GU_4^{MEŠ}$ *kuwapi warandat* (dupl. *warantat*) *n=uš apiya išhūw*[*anzi*].

[39] KUB 30.24 + ii 3–4 (Kassian *et al.* 2002, 384–385): *nu=wa=(š) ši=kan kēdani ANA* Ú.SAL $GU_4^{HÁ}$ UDU^{HÁ}*=ya* ANŠE.KUR.RA^{MEŠ} ANŠE.GÌR.NUN.NA^{HÁ} *ušeddu.*

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SUBSTITUTION

The relationship between burnt sacrifice and substitution rites is illustrated by several Hittite texts. Those texts show that an animal substitute might at the same time serve as a burnt sacrificial victim.[40] This seems to be the case in the following passage from the text of Maštigga's ritual against family quarrels:

> **Excerpt 18:** They bring a black sheep. The Old Woman *holds* it over them (i.e. the patients) and says: "For your heads (and) your whole persons, the substitute (is) a black sheep. The curses also (are) behind (its) mouth (and) tongue!" § She *waves* it over them. The two ritual patrons spit into its mouth, and then they slaughter the sheep. Then, they dismember it. They make a hearth and they burn it entirely. They also pour honey and virgin olive oil on top of it. She br[ea]ks a loaf of sweet bread and she throws it into the hearth. She also pours a libation of wine.[41]

The "holding/waving" of a sheep "over" the patients might either be a symbolic gesture or a mistaken translation into Hittite of a Hurrian or Luwian expression.[42] Although the black sheep is explicitly designated as the substitute of the patients, it might serve as a sacrificial victim at the same time. Indeed, honey and olive oil are poured on top of its burning corpse and the hearth in which the latter is burning also receives bread, thus giving a sacrificial aura to this scene.

In the text of Muršili's aphasia, a substitution ritual is performed in order to cure the Great King:

> **Excerpt 19:** As soon as they bring the ox-substitute, the way the rite of the ox-substitute (is) inscribed on the old wooden tablet and the way the instruction(s are) made for it, (i.e.) the way the rite of the *ambašše* burnt sacrifice (and that) for his health (are) performed for the deity according to the old wooden tablet, they perform them in the same way. However, if the ox-substitute dies on the way back because the trip (was) long, as soon as they [*arrive*] there, from there they lead another ox-substitute (that is) ador[ned] with ornaments, so that they burn (those) other ornaments (together) with that [*other*] ox-substitute.[43]

The text seems to indicate that the prescribed *ambašše* burnt sacrifice consists of burning the ox-substitute of the Great King together with its ornaments.[44]

The passage of another text of a royal substitution ritual states:

> **Excerpt 20:** 'I have just placed (this) bu[ll] (as) a substitute. [...] of this bull [...]. May the Sun god of heaven se[e] the smoke of this bull!' As he[45] says this, they *hurry* back and they lower [down] the *ambašše*-sacrificial hearth.[46]

Just like in the preceding passage, a close relationship seems to exist between the *ambašše* burnt sacrifice and the substitution rite: the text mentions the "smoke of [the] bull", so that it seems quite certain that the bull-substitute is the one being burnt as an *ambašše* sacrificial victim.

OTHER RITUAL CONTEXTS

Whenever the burnt sacrifice is not performed in the context of an invocation or a substitution ritual, one can find it in other ritual contexts, such as the celebration of a military campaign. This is what the following excerpt from a festival text shows:

> **Excerpt 21:** The (military) campaigns that the king has fought—however many (military) campaigns he has

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[40] Mouton 2014b.

[41] KBo 39.8 ii 35–43 (CTH 404; Mouton 2016, 392–395, § 22–23): *nu* UDU GE$_6$ *ūnnanzi n=an=šamaš=kan* ^{MUNUS}ŠU.GI *šer ēpzi nu kiššan memai* SAG^{HA}=*ašmaš tueggaš hūmandāš tarpalliš* UDU GE$_6$ KAxU-*i* EME-*i hūrtauš=(š)a* EGIR-*an* § *n=an=šamaš=kan šer arha wahnuzi nu=(š)ši=kan* 2 *BĒL* SÍSKUR *iššī anda allapahhanzi nu* UDU *hattanzi namma=an arha happešnānzi nu* GUNNI *iyanzi n=an arha warnuwanzi* LÀL=*ya=(š)ši=kan* Ì *SERDU pittalwan šer lāhuwanzi* NINDA.GUR$_4$.R[A] KU$_7$ *paršiya n=an=kan haššī peššiyazzi* GEŠTIN=*ya šipanti*.

[42] Miller 2004, 111–112.

[43] KUB 43.50 + Rev. 28'–36' with duplicates KUB 12.31 + Rev. 18'–25' and KBo 4.2 + iv 41–50 (CTH 486; Görke 2015, § 5): [(*mah*)]*han=ma* GU$_4$ *pūhugarin* (dupl. *puhugarin*) *arn*[(*uwanzi nu ŠA*)] GU$_4$ *pūhugari* GIM-*an* SISKUR *annall*[(*a*)]*z* (dupls. *annalaz*) *IŠTU* [(^{GIŠ}*LE'U* (dupl. ^{GIŠ}*LE'Ē*) *gulaš*)]*šan išhiul=(l)a=(š)ši* (dupl. *išhiūl=ši*) GIM-*an* (dupl. [*m*]*ahhan*) *iyan ANA* DINGIR-*LIM=ya* SISKUR (dupl. SÍSKUR) a[(mbašše k)]eld(i)=i=a *annallaz IŠTU* ^{GIŠ}*LE'U* (dupl. *annalaz IŠTU* ^{GIŠ}*LE'Ē*) GIM-*an* (dupl. ^{GIŠ}*LĒ'E mahhan*) [(*iyan n=a*)]*t QĀTAMMA ēššanzi mān* GU$_4$ *pūhugariš*=[(*ma* EGIR.KASKA)]L-*ni* (dupl. EGIR.KASKAL) *aki* KASKAL-*aš kuit tūwa n=at* GIM-*an* (dupl. *mahhan*) *apēya* (dupl. *apiya*) [...-*a*]*nzi nu tamain* GU$_4$*pūhugarin apez=(z)a* (dupl. *apēz=(z)a*) [*u*]*našhaz* (dupl. *apēz unuwašhaza*) *un*[*uwand*]*an nannanzi nu tamau*[*š* (dupls. *apūš*) (*u*)]*našhuš* x x x[... *ap*]*ēdani ITTI* GU$_4$ *pūhug*[(*ari wa*)]*rnuwanzi*.

[44] Concerning the adornment of (animal) substitutes, see Mouton 2014b.

[45] The king who is the ritual patron.

[46] KBo 15.7:7'-11' (CTH 420; Kümmel 1967, 36): *nu=wa=za kāša* GU[$_4$.MAH ^{L}]^{Ú}*tarpallin tehhun n*[*u=wa*] *kēl ŠA* GU$_4$.MAH x[...] *hhuwain=ma=wa kēl Š*[*A*] GU$_4$.MAH ^{D}UTU AN-*E auš*[*du n*]*u* GIM-*an kī memai nu* EGIR-*p*[*a*] *parhanzi nu am.-šin* [*kattan t*]*arnanzi*. My restoration of the last sentence is based on the parallel excerpt appearing in KBo 53.93 ii 4 (*HED* A, 49). It alludes to the movable character of the *ambašše*-sacrificial hearth.

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> fought—(during) the years that went by in the meantime (and) until he celebrates the deity, they make an oracular inquiry concerning the *ambašše* and the *keldi* rites, as well as the *malteššar*-recitations (to perform) for those (military) campaigns. As it has been determined for him, he will make the *ambašše* burnt sacrifice in the ancient *ambašše*-sacrificial hearth.[47]

The precise function(s) of the *ambašše* sacrifice is not specified by the text. It could be intended either for purifying the king after battle or as a thanksgiving to the gods after his victories.

The following excerpt comes from a fragmentary text describing a cultic festival in the Hattian city of Zippalanda:

> **Excerpt 22:** They have lit big torches in front of the deity. The deity arrives at the gate. The lord[48] dedicates one bull (and) one billy goat to the Stormgod of the city of Zippalanda. They burn them entirely in the fashion of the city of Hattuša. § At the same time, the chief of the royal bodyguards and the chief of the palace officials pronounce the following word(s): "If (you), Stormgod of Zippalanda, are somehow *vengeful* (and) your divine forehead is [...] upward, we have just burnt your anger and [we have ...] your divine forehead, Stormgod of Zippa[landa]." § Around the *ambašše* burnt sacrifice, [he] pours a lib[ation] of "beer-wine".[49]

This excerpt attests to the adoption of the Kizzuwatnean *ambašše* burnt sacrifice in Central Anatolia: it is described as being conducted "in the fashion of Hattuša".[50] One can also note the symbolic significance that the incantation attributes to that sacrifice: by burning those animal victims, the human protagonists burn away the divine recipient's anger. Burning a god's anger is a *topos* that one finds in Hattian mythological narratives,[51] but its comparison with an *ambašše* burnt sacrifice is clearly an *ad hoc bricolage*.

Final remarks

Through this overview, it appears that sheep, oxen, goats, birds, and horses could be burnt as sacrificial victims in Hittite Anatolia (see *Table 1*). One notes the particular connection that seems to exist, in **Excerpts 3** and **16–17**, between the burnt sacrifice of horses and the royal character of the religious event. The cremation itself is performed by the ritual practitioner (the Old Woman, the AZU ritual expert, *šankunni*-priests, etc.) or by the ritual patron (the king), although I suspect that, in the latter case, the ritual patron does not actually perform the cremation, but rather dedicates the sacrificial victim before its cremation. The texts in which the ritual patron is said to be the actor of the cremation (**Excerpts 3** and **21**) probably summarize a more complex sequence. **Excerpts 7**, **20** and **22** in fact illustrate that the ritual patron is the one who dedicates the animal before it is burnt, not the one who does the burning. Similarly, the ritual patron is not responsible for the slaughter of a sacrificial victim, but only for its dedication to the divine recipient(s).[52]

The Kizzuwatnean *ambašše* sacrificial technique predominates in the textual evidence for burnt animal sacrifice in Hittite Anatolia. This is expected, for the ritual texts relating to the Kizzuwatnean tradition are themselves predominant in the Hittite documentation. Although the use of fire as a vehicle to send foodstuffs and items to the other world seems to have originally been a Kizzuwatnean particularity within Hittite Anatolia,[53] several texts provide witness to the adoption of the *ambašše* burnt sacrifice in the heart of the Hittite kingdom. A reinterpretation of this rite as the burning of a god's anger (**Excerpt 22**) illustrates one of the ways this "provincial" technique was inserted and combined with preexisting Central Anatolian traditions.[54]

ALICE MOUTON
Centre national de la recherche scientifique, Paris UMR 8167
alice.mouton@cnrs.fr

[47] KUB 27.1 i 7–12 (CTH 712; Wegner 1995, 32): LUGAL-*uš=ma kuiēš gimriuš lahhešket nu mašiēš gimruš lahhiyan harzi ištarna=kan kuiēš* MU^{HÁ} *panteš kuitman=za* DINGIR-*LIM iyazi nu=za apēdaš gimraš šer* SISKUR *ambaššin keldian=(n)a malteššar=(r)a ariyanzi nu=(š)ši kuit* SIxSÁ-*ri nu=kan ambaššin annalli ambašši anda šipanti*.

[48] The human patron of the ceremony, i.e. the king.

[49] KUB 20.96 iv 1–15 (CTH 635; Groddek 2004, 166–167 and *CHD* Š, 268): ^{GIŠ}*zuppari*^{HÁ} GAL^{HÁ} *šiuni peran lukkan harkanzi* DINGIR-*LUM=kan* KÁ.GAL-*na šarā ari t=ašta BĒLU* 1 GU$_4$.MAH 1 UDU.ŠIR *ANA* ^{D}U ^{URU}*Zipalanda šipanti t=aš* ^{URU}*Hattušaš iwar arha warnuwanzi* § GAL *MEŠEDI=kan* GAL DUMU^{MEŠ} É.GAL=*ya memian anda kiššan memanzi mān=wa=za* ^{D}U ^{URU}*Zipalanda kuitki šarkiwališ šiunaš hanza=tit šarā* [...] *kāša=wa=(t)ta kartimmiya*[*ttan*] *warnummen nu=wa* ^{D}U ^{URU}*Zipa*[*landa*] *šiunaš hanza=(t)tit arha* [...] § ambašši *arahzanda* KAŠ.GEŠTIN *ši*[*panti*].

[50] Bo 5045 ii 6'–7' and KUB 44.33 i 8–9 also mention a burnt sacrifice in the fashion of Hattuša in fragmentary contexts, see Fuscagni 2007, 95 and Popko 1994, 232. These three fragments belong to the same composition, CTH 635. **Excerpt 19** also clearly illustrates the adoption of the *ambašše* sacrificial technique in Hattuša, as it is used for curing the Hittite Great King.

[51] Mouton 2016, 474–475 § 27".

[52] Mouton 2007, 83–84.

[53] Mouton 2006, 259–261.

[54] About the possible reason for keeping records of "provincial rituals" in the royal court of Hattuša, see Mouton 2016, 44–45. About the adoption of Kizzuwatnean religious features in the Hittite heartland, see, for instance, Strauß 2006, 9–11.

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Table 1. Animal species and ritual contexts of burnt sacrifice. MS = Middle Script (15th century–first half of the 14th century BC); NS = New Script (2nd half of 14th century–13th century BC); LNS = Late New Script (end of 13th century–beginning of 12th century BC).

Excerpt no.	Burnt animal	Whole or parts	Who makes the action	Burning place	Ritual context	Cultural origin	Other	Date
1	sheep, ox	bones only	unspecified	unspecified	against evil bee and evil tongue	mixed	burnt bones thrown into the watercourse	NS
2	[*piglet*], sheep, donkey, puppy	whole	unspecified	uncultivated place	royal substitution	mixed	no sacrifice—remnants buried in uncultivated place	LNS
3	horses	whole	"Great King"	unspecified	*ambašše* sacrifice for a deity during a cultic festival	Kizzuwatnean	associated to a banquet	MS
4	[*sheep*]	consecrated meat cuts	*šankunni*-priests and *haruspex*	in the precinct of the *dahanga*-temple of the Storm-god of Nerik	cultic festival of Nerik	mixed	–	LNS
5	unspecified	unspecified	unspecified	porch of the temple of Ištar of Niniveh	cult	mixed	oracular report about a sacrilege	NS
6	birds, lamb	whole	unspecified	door of the temple; inside the temple	*ambašše* sacrifice during purification of a temple	Kizzuwatnean	–	NS
7	bull, calf, sheep	whole	unspecified	in front of the god; at the porch of the temple	*ambašše* sacrifice for the Storm-god during cultic festival	Kizzuwatnean	king dedicates the victims before cremation	NS
8	bird	heart only	*patili*-ritual expert	in the patient's house	purification of a pregnant woman	Kizzuwatnean	sacrifice?	NS
9	kid-goat	whole	AZU ritual expert	unspecified	ritual for the Heptad	Kizzuwatnean	–	LNS
10	sheep	fat only	unspecified	unspecified	purification	unknown	–	NS
11	sheep, billy goat	fat only	unspecified	unspecified	ritual for the Sun-goddess of the earth	mixed	"cooked"	NS
12	sheep	fat only	unspecified	inside the temple	settling the goddess of the night	Kizzuwatnean	"no one eats it"	NS
13	lamb	bones and hide only	unspecified	unspecified	ritual	unknown	sacrifice?	NS
14	birds	whole	ritual expert	by the watercourses	*ambašše* sacrifice to the watercourses during invocation	Kizzuwatnean	burnt birds thrown into the watercourses	NS
15	bird	whole	ritual expert	in the *āpi*-pit	*ambašše* sacrifice during invocation	Kizzuwatnean	burnt sacrifice in the pit through which the deity is being invoked	MS?
16–17	horses, oxen	heads only	unspecified	unspecified	royal funerary ritual	mixed	no sacrifice	LNS
18	black sheep	whole	unspecified	unspecified	against evil tongues within a family	Kizzuwatnean	sheep-substitute and sacrificial victim	LNS
19	ox	whole	unspecified	unspecified	*ambašše* sacrifice during substitution	mixed	ox-substitute for the king and sacrificial victim	MS
20	bull	unspecified	unspecified	unspecified	*ambašše* sacrifice during substitution	mixed	king dedicates the bull as (his) substitute; also sacrificial victim	NS
21	unspecified	unspecified	"king"	unspecified	*ambašše* sacrifice during cultic festival	mixed	after the king's military campaigns	NS
22	bull, billy goat	whole	unspecified	at the gate (of the city/temple?)	*ambašše* sacrifice for the Storm-god of Zippalanda	mixed	"lord" dedicates the bull and billy goat burnt "in the fashion of Hattuša"; compared with burnt anger of the god	NS

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JONATHAN S. GREER

14. From flock to temple to table

The sacrificial animal of the fellowship offering in Ancient Israel in text and archaeology

Abstract

This chapter describes the "sacrificial animal" of the "fellowship offering" (*šəlāmîm*) in ancient Israel, focusing on the various activities surrounding its selection, slaughter, associated rituals, butchering, distribution, preparation, and consumption. Biblical texts from the Hebrew Bible/Old Testament in its various forms (focusing on the Masoretic Hebrew tradition and with special attention to the Septuagintal texts as well) and the available archaeological sources for Israelite temple sacrifice (focusing on Tel Dan in northern Israel) are synthesized to reconstruct details about this Israelite sacrifice as it might have been practiced during the period of the Hebrew kingdoms during the first half of the 1st millennium BC. The aim is to describe the "sacrificial animal" of the *šəlāmîm* in a way that will be useful for Classicists as a point of comparison between Israelite and Greek sacrificial systems.*

Keywords: Israel, Israelite animal sacrifice, Hebrew Bible, Old Testament, Septuagint, archaeology of Tel Dan, fellowship offering, selection, slaughter, blood, burning, butchery, distribution, consumption

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The ritualized slaughter and consumption of animals often designated as "sacrifice" is a transcultural phenomenon embedded within various religious systems of antiquity, both in practice and in ideology, and remains foundational in numerous cultures today. For inhabitants of the Mediterranean Basin and the ancient Near East in the 1st millennium BC, the various cultural expressions of sacrifice exhibited many similarities in meaning and practice, as well as many differences. As such, comparisons of the varying manifestations of sacrifice serve as fodder for fruitful explorations of questions concerning interaction among the different cultures and often bring clarity to the distinctive characteristics of each.

This paper aims to describe the "sacrificial animal" of the so-called "fellowship offering" in ancient Israel, specifically the various activities surrounding its selection, slaughter, associated rituals, butchering, distribution, preparation, and consumption, and to do so in a way that will be useful for Classicists as a point of comparison with the Greek and Roman sacrificial systems. The focus will be on reconstructing details about this Israelite sacrifice as it might have been practiced during the period of the Hebrew kingdoms during the first half of the 1st millennium BC, as it is our earliest point of entry and, thus, most applicable to exploring questions of origins and influence. The method will be synthetic, engaging with both texts from the Hebrew Bible, or Old Testament, in its various forms,[1] and the available archaeological sources.

Textual witnesses to the fellowship offering sacrifice in the Hebrew Bible

Sacrifice is described in the Hebrew Bible as a central characteristic of the cult and is mentioned in narrative and cultic genres throughout the canon. The most detailed descriptions are found in the so-called Priestly Source (P) of the Penta-

* While I was present at the conference, this paper was not presented as part of the program and, thus, has not benefitted from direct interaction with the other contributors to this volume; its content, however, was deeply enriched by these interactions and thanks are extended especially to the organizers Gunnel Ekroth and Jan-Mathieu Carbon for their invitation to attend the conference and to contribute to the volume.

[1] The focus will be on the received Hebrew text within the Masoretic tradition (the MT), but there will be some interaction with the Greek Septuagintal (LXX) traditions as well, especially since these will be of special interest to Classicists.

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teuch, and more specifically in the priestly sacrificial manual (Lev 1–7) where the five main categories of sacrificial offerings are described: the burnt offering (Lev 1:1–17, 6:8–13),[2] the grain offering (Lev 2:1–14, 6:14–23), the fellowship offering (Lev 3:1–17, 7:11–34), the sin offering (Lev 4:1–5:13, 6:24–30), and the guilt offering (Lev 5:14–6:7, 7:1–6).

Of these five categories of sacrifice, the most suitable for the purposes of comparison with the "sacrificial animal" described above is the "fellowship" offering (usually plural in the Hebrew Masoretic text [MT]: *šəlāmîm*, often with forms of *zebaḥ*; in the Grek Septuagint [LXX]: σωτήριον in the Pentateuch, Joshua, and Judges, and εἰρηνικός in Samuel and Kings, often with forms of θυσία).[3] There are a number of reasons for this focus. In regard to our texts, many of the processes associated with the "fellowship" offering are described in detail, sometimes with interesting variants among the biblical traditions, and it is apparently portrayed as the most frequent type of offering. In regard to archaeology, as will be discussed below, the fact that the animal victims are described as eaten and not burned up entirely (as is the case with the burnt offering) potentially allows for evidence of such practices to be more accessible through the examination of the archaeological remains of meals. Further, as the main offerings that are consumed by priests and also by the people, they are ripe for exploration of the social power dynamics of these rites, as expressed through feasting, as well as for inquiries into the deeper meanings of the associated acts. A final reason to focus here on the fellowship offering is to add to discussions of comparisons between it and the Greek θυσία, especially as both offerings entail the burning of a symbolic portion of the animal (the fat and innards in the case of the *šəlāmîm*, and the fat-wrapped femur in the case of the θυσία) and the distribution of priestly portions before participants engage in a sacred feast.

The origins of the fellowship offering in context

While a clear understanding of the origins and etymology of the fellowship offering remains elusive, the Hebrew term *šəlāmîm* is cognate to the *šlmm* sacrifices mentioned in the 13th century BC cultic texts of Ugarit. These texts, usually cultic lists, concern the slaughter and consumption of animal victims from the flock and herd, most frequently in a royal context.[4] Further, the Ugaritic *šlmm* are often listed in conjunction with the "burnt offering" (Ugaritic *šrp*; cf. the Hebrew root *śrp*, "to burn") and semantically related to the Hebrew designation for the burnt offering (*ʿōlâ*), as in the Ugaritic couplet *šrp w-šlmm* mirroring *ʿōlôt û-šəlāmîm* in the Hebrew Bible. Scattered references may also be found in Phoenician and Punic texts, though it is not entirely clear that these references suggest close parallels with the biblical offerings known by the same name.[5]

Occurrences of the fellowship offering in the Hebrew Bible

In the Hebrew Bible itself, the term consistently occurs in the plural. A single exception is found in Amos 5:22 where it appears as *šelem* (notably, in terms of the discussions below on dating, mentioned in conjunction with burnt and grain offerings), which seemingly parallels examples in Ugaritic where it also occurs as a singular.[6] Some have taken the form as a plural of intensification or amplification of some notion of "well-being" (from *šālēm*) or plural in reference to the multiple portions surrendered to Yahweh (i.e., the fat and the blood) or simply as a regular plural referring to the different stages or multiple offerings, while others suggest it is not a plural form at all but merely a noun with a reduplicated or enclitic *mem*.[7]

[2] Verse references here correspond to the English text versification that occasionally differs from the Hebrew system.

[3] There is significant discussion surrounding how best to gloss the term *šəlāmîm* in English and, to quote Jacob Milgrom, all attempts are "at best, educated guesses" (Milgrom 1991, 220). Common glosses as summarized in Milgrom 1991 and Averbeck 1997 include "fellowship" or "communion offering" (cf. the classic definition proposed by Robertson Smith [1889]), "well-being offering" (Milgrom [1991], related to *šālēm*, as intensified "wholeness"), "peace offering" (Wenham [1979], from the Hebrew nominal form *šālôm*; cf. the LXX εἰρηνικός and Latin Vulgate *pacificus*), "tribute/gift/greeting offering" (Levine [1974, 3–52; 1989, 14–15], from Akkadian *šulmanu*, note however that many have challenged this suggestion for contextual reasons in that the proposed Akkadian cognates are not used in sacrificial contexts, yet this is precisely what Levine argues: it functions parallel to the political offering), "recompense" (cf. Piel *šillēm* in the Covenant Code, Exod 20:22–23:19), "payment offering" (in terms of a portion substituting for the whole offering, i.e., the blood that is splashed and the fat that is burned, as discussed below), or "concluding sacrifice" (based on the observation that it is often last in the list of sacrificial offerings—this, however, may simply be an accident of literary tradition or a practical feature in that time is allowed for feasting; note, too, that it is not always last: cf. Lev 9:3–4 where the grain offering is offered last or at same time as the fellowship offering) to name a few. See Anderson 1987, 36–55; Milgrom 1991, 217–225; Averbeck 1997, 135–143; *HALOT* 4, 1535–1538; Gerleman 1997, 1337–1348; Seidl 2006, 105–116; for more complete surveys with further references.

[4] Consumption is implied in each text though often not explicit; for one example where consumption is clearly stated, see *KTU* 1.115.

[5] For summaries, with citations of Ugaritic and Phoenician/Punic parallels as well as other cognates, cf. Milgrom 1991; Schwemer 1995; Averbeck 1997; Seidl 2006.

[6] See Milgrom 1991, 220, for examples.

[7] Although, as Seidl 2006, 106, points out, it is impossible to be sure, as the term never occurs as the subject of a verbal clause or is never modified

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Perhaps lending some support to the idea of translating it as a reduplicated form of a singular noun, in addition to the Ugaritic evidence, may be the texts of the Septuagint, which with some degree of regularity render the terms in the singular (σωτήριον, εἰρηνικός), unless context dictates otherwise (e.g., if multiple "fellowship offerings" are offered).

Of the 87 occurrences of the fellowship offering (*šəlāmîm*) in the Hebrew text, the vast majority fall within the larger priestly corpus with 53 examples in what most would identify as P (here specifically in portions of Exodus, Leviticus, and Numbers), and another six examples in Ezekiel, a 6th-century BC composition with clear ties to an antecedent priestly tradition.[8] In these technical priestly texts, the fellowship offering is described as a subtype of the larger category of "sacrifice" (*zebaḥ*),[9] namely, as a sacrificed animal whose flesh was consumed in a sacred feast.

In its association with frequent meat eating, whether exclusive or not, the fellowship offering was in many ways less regulated than other offerings. Within priestly texts, there are prescriptions for various members of the community, from the king to the laity, regarding the initiation of this type of sacrifice on a variety of occasions, ranging from public to private. Thus we are not surprised to find the offering and consumption of *šəlāmîm* in texts outside the priestly corpus, not only once in Deuteronomy (Deut 27:7) and in repetitions of the law in the book of Joshua, but also in narrative texts associated with central shrines such as Bethel (Judg 20:26) and especially Jerusalem where they are included in the dedication of Solomon's temple (1 Kgs 8 and paralleled in 2 Chron 7), as well as in rededications of the temple and/or the altar, such as those by Hezekiah (2 Chron 30) and Manasseh (2 Chron 33). Fellowship offerings also feature in stories that describe the times before the temple, such as the offerings performed by Saul and David, as well as by "the people" (i.e., the common members of the community) mentioned in 1–2 Samuel. Thus, the examples in priestly and narrative texts illustrate that the fellowship offerings were offered by individuals in each segment of society at various times and for various purposes.[10]

The use of biblical texts in reconstructing practices associated with the fellowship offering in the Monarchic Period

While it is fairly straightforward to survey the texts of the Hebrew Bible in order to derive a sense of how the fellowship offering was conceptualized in practice, the more difficult task is to apply these texts to our historical reconstruction of Israelite sacrifice in the Hebrew monarchic period (*c.* 10th/9th–6th century BC) due to myriad complications surrounding the date and provenance of the various complexes of texts. As a living canon of faith for ancient Israel, the scriptures as we have them are the end result of a long process in which authoritative writings were collected, arranged, and edited over hundreds of years from different sources and in different locales while undergoing various expansions and abridgments. This, then, makes associating descriptions with precise historical contexts a difficult endeavor within the Hebrew tradition itself. It becomes even more complicated when variant traditions that arise from the distribution and translation of these sacred texts in other cultural contexts are considered.

According to the biblical presentation, however, all of the sacrificial prescriptions have their origin in the revelation of Yahweh to his people Israel soon after the exodus from Egypt. While many scholars remain skeptical of the biblical portrayal in general, and the descriptions of Moses and the exodus in particular, and view these as much later reflections of earlier memories with varying degrees of historicity, there is nothing inherently "late" (i.e., dating to the Persian or Hellenistic periods) in the actual cultic practices that are described in any of the complexes of texts. To the contrary, as scholars of the ancient Near East have often pointed out, many of the descriptions of the priestly rituals and paraphernalia appear to reflect a rather "early" time-period; indeed, fascinating parallels between ritual practices described in P and similar practices described in Late Bronze Age (14th–13th century BC) texts from Emar, Mari, and Hattuša may suggest an early common context for the shared traditions. Parallels that relate specifically to priestly rituals include descriptions of particular festivals and the construction of tent shrines, as well as the practice and significance of scapegoat rituals, purification practices, and even blood manipulation rites.[11]

This is not to suggest that the descriptions of these traditions as we have them in P date to the Late Bronze Age; to the contrary, based on both internal evidence from the literary study of the Pentateuch and external evidence from extant textual evidence, especially from the later texts from Qumran,

by an adjective; cf. his full discussion there.

[8] On the relationship among P, H, and Ezekiel, see Milgrom 1991, 3–35, and Knohl 1987; 2007; and for arguments that Ezekiel postdates P, see Hurvitz 1974; 1982; 2000, specifically. For challenges to standard models of linguistic dating, see Young & Rezetko 2019 and references there.

[9] With Milgrom 1991, 217–218 (contra Rendtorff's [1967] proposal for public *šəlāmîm* and a private *zebaḥ*), taking *zebaḥ šəlāmîm* quite literally as "the sacrifice of the fellowship offering".

[10] Cf. further discussion in Milgrom 1991, 224–225.

[11] See specific parallels addressed in Weinfield 1983; Fleming 2000; Feder 2011; Knohl 2015. For Hittite comparisons, see also the paper by Mouton in this volume, *Chapter 13*.

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many would agree that the form of our current text likely dates to the Persian period (5th century BC), with some fluidity among traditions extending into the Hellenistic period (4th and 3rd centuries BC, at least). Further, there is evidence that the meaning of particular sacrifices may have been developed in later traditions (comparing descriptions of the guilt and sin offerings in P and the related Holiness Code [H], for example), and that variant forms of rituals persisted in different locations or at different times (comparing the Passover prescriptions in P and Deuteronomy, for example). This, then, raises particular problems for our reconstruction in that one must seek to isolate the forms of Iron Age II practice (9th–7th century BC) from texts that reached their final form in the Persian period, and that this final form of the text preserves various versions of such practices.

Complicating the matter further are current debates surrounding the formation of the Pentateuch in general, and over the date and provenance of the Priestly Source in particular (if, in fact, the ritual texts of P are to be connected with the narrative texts of P as is often assumed).[12] While a full discussion of these debates is beyond the scope of this chapter and the reader is directed elsewhere,[13] this author presently finds the arguments for a preexilic date (i.e., a pre-6th century BC) for the priestly ritual materials to be most convincing based on the arguments of language (classical Hebrew is employed, not exilic/postexilic Hebrew; though this is also not without its problems),[14] the relationships among the sources and historical reconstructions as we understand them, and archaeological resonance.[15] Notably, even critics of a preexilic date are not opposed to arguments for practices dating to earlier times.[16] Provenance, however, is closely related to views regarding dating and, even among the proponents of a preexilic date for P, the question remains open. Arguments have been made for a northern shrine at Shiloh (thus, even potentially pre-monarchic) and for a pre-Hezekian (early 8th century BC, at least) temple in Jerusalem, as well as for other positions.[17]

Regardless of the date of the final form of the text, if we affirm that these traditions may be associated with actual practice (and this is not agreed upon as certain),[18] the fact that these rituals were nuanced and imbued with extended meaning in later forms should not derail us from our task, in that our aim is to reconstruct *practices*—that is to say, the principal human and animal participants and the physical processes and material components involved in the acts of sacrifice—and not *texts*; indeed, the fact that rituals were adapted to fit new circumstances, and even that variant traditions arose, would seem only to strengthen the argument that "real" practices lie behind these descriptions. An evaluation of the extent of the correspondences between the textual descriptions and the actual practices, it will be suggested below, may be enhanced by an integration of archaeology.

Archaeological evidence of Israelite sacrifice and the fellowship offering

Indeed, archaeology can bring a physicality to our discussion of the sacrificial animal of the fellowship offering in ancient Israel by providing *realia*—animal bone and artifactual remains, especially—that may be compared and contrasted with the extant written traditions. The coordination of these finds with the texts may further be enhanced by ethnographic parallels with contemporary societies and by experimental archaeology.

While there is no shortage of archaeological contexts to explore questions of sacrifice in the southern Levant within the timeframe of our focus, i.e., the 9th–7th centuries BC, they are not all of equal weight in helping us describe the archaeological animal of priestly sacrifice. In fact, aside from numerous examples of "cultic corners" associated with domestic spaces and other cult places,[19] there are only three arguably Yahwistic temples excavated which bear evidence of activity during this time period: Tel Arad, Tel Moẓa, and Tel Dan.[20] As temples paralleling the Jerusalem temple not only in terms of contemporary activity but also in terms of function, they will provide the most suitable contexts for comparison. Of these, Tel Dan will provide our most important parallel for a number of reasons described below.

[12] Cf. Rendtorff 1993, reflecting on the contrast between his approach and Milgrom's.
[13] For recent discussions, see Ska 2006, 159–161; Shectman & Baden 2009; Gertz *et al*. 2016; Kratz 2016.
[14] Cf. and contrast the essays in Miller-Naudé & Zevit 2012; Hendel & Joosten 2018; Young & Rezetko 2019.
[15] Cf. the various linguistic, comparative, and archaeological contributions in Haran 1978, 132–148; Zevit 1995; Friedman 1997; Halpern 2003a; 2003b; Hurvitz 1974; 1982; 2000; Rendsburg 1980; Milgrom 1991, 3–13; Wenham 1979, 81–91; Weinfeld 1983; Feder 2011.
[16] See e.g. Blum 2009, 31–32, following Wellhausen 1885, 404.
[17] See Milgrom 1991, 29–35.
[18] Cf. Schiffman 2016, 73–74.
[19] See numerous examples in Zevit 2001 and Hess 2007.
[20] For Arad, see Aharoni 1968; for Moẓa, see Kisilevitz 2015; and for Dan, see Biran 1994.

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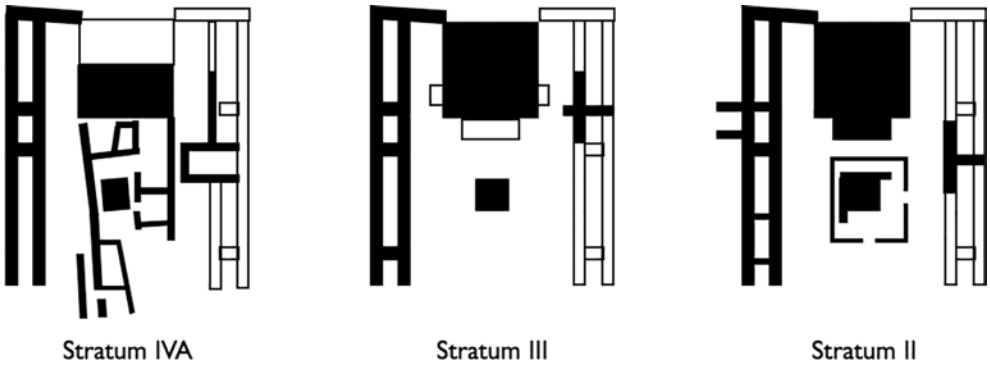

Fig. 1. The sacred precinct at Tel Dan (Area T) showing major Iron Age II architectural features by stratum. Illustration by J. Greer after Biran 1994, 182, 188 and 205.

Tel Dan as a type-site for explorations of the Israelite fellowship offering

Tel Dan, located in the Upper Galilee region of northern Israel, close to the borders of Syria and Lebanon, stands out as a significant site for explorations of Israelite sacrifice, first of all, due to the recorded memory in the Hebrew Bible of this site having served as a Yahwistic temple, and, in fact, as one of two national shrines for the northern kingdom of Israel.[21] Specifically, 1 Kings 12 recounts the division of the kingdom following the death of Solomon and the establishment of temples at Bethel and Dan intended to rival the temple in Jerusalem, and these are mentioned later in this same corpus as well (cf. 1 Kgs 13; 2 Kgs 10:29; 2 Kgs 17; 23). While some have questioned the correlation of these textual traditions to "history" as it is currently understood in our modern context and the interpretation of the remains as those of a Yahwistic temple, this author has argued elsewhere that its Yahwistic association is relatively clear.[22]

Even if the "orthodox" nature of the worship may be questioned, the site boasts extensive cultic architecture in the sacred precinct of Area T (*Fig. 1*), including a prominent platform upon which the temple would likely have stood, the partial remains of a massive four-horned altar, and numerous small finds associated with religious practices, some of which will be described below. Extensive evidence for eating activity abounds, as well, including the remains of several *tannur*-type ovens, an olive press, and the remains of numerous cooking pots and other eating and serving vessels along with several large pithoi. Tens of thousands of animal bones have also been recovered, many of which bear cut marks associated with all stages of animal processing, as discussed below. Indeed, it would be difficult to deny that highly concentrated and extended eating events took place in this space, and their enactment in an environment with a high concentration of cultic indicators clearly identifies these events as cultic feasts. Further, the general characteristics of the meals as may be determined archaeologically seem to fit with Israelite sacrifice, as will be discussed below.

An integrated description of the sacrificial animal of the fellowship offering in Ancient Israel

In what follows, this essay will integrate the textual details given for the fellowship offering in the various literary traditions of the Hebrew Bible with archaeological data, primarily from Tel Dan but from other sites as well, in order to develop a robust description of how such sacrifices and their associated feasts relate to the archaeological animal and the "scripts" associated with them.[23]

THE SELECTION OF THE ANIMAL

As mentioned above, the clearest description of the fellowship offering is to be found in the priestly manual of Lev 1–7. Here, it is specified that the animal may be taken from the "herd", that is it may be a bovine, or from the "flock", that is, it may be a sheep or a goat, with the prescriptions repeated for each; as far as sex, it may be male or female regardless of species. Such a prescription finds broad resonance in a Levantine archaeological context in a variety of ethnic subgroups, in that cattle, sheep, and goats are the primary sacrificial animals. Even in contexts in which pigs are eaten in domestic contexts, they are

[21] Much of what follows is drawn from Greer 2013, wherein full discussions may be found; on the site of Tel Dan, see Biran 1994; Davis 2013; and on the initial faunal analysis, see Wapnish & Hesse 1991.

[22] Specifically, Greer 2017a, where these arguments, with citations, are developed in detail. See also Davis 2013 and Ackerman 2013.

[23] On ritual practices as "scripts," see Hesse *et al*. 2012.

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apparently avoided in sacrificial contexts,[24] thus contrasting significantly with Greek and Roman sacrificial traditions.

Regardless of which animal is offered, it must be *tāmim* (LXX: ἄμωμος), a technical term often translated "without blemish", a requirement that also extends to animals for the burnt offerings (Lev 1:3, 1:10), sin offerings (Lev 4:3, 4:23, 4:28, 4:32, cf. 9:2, 9:3), and guilt offerings (Lev 5:15, 5:18, 5:25, 6:6).[25] Outside of the priestly manual of Lev 1–7, the term is applied to offerings of the Passover lamb or goat (Exod 12:5), and in other descriptive priestly texts such as in the description of the Aaronide ordination (Exod 29:1), the red heifer offering (Lev 19:2), and the offering associated with the fulfilment of the Nazarite vow (Num 6:14), as well as requirements for daily, Sabbath, new moon, and other festival sacrifices (Num 28–29; cf. Num 15:1–16). It is also included in later reformulations of priestly stipulations in H,[26] as well as in Ezekiel's description of the idealized sacrifices of the visionary temple (Ezk 43:22–25, 45:18–23, 46:4, 46:13) and in Deuteronomic law (Deut 15:21; cf. Deut 17:1, though not identified by the term *tāmim*).[27] Of these related texts, it is in H that one finds the greatest detail as to what constitutes a "blemish". In Lev 22:17–25, typically assigned to an H stratum, such proscriptions include blind, diseased, injured, or disabled animals, as well as emasculated males and any blemished animal obtained by a foreigner; curiously, the LXX adds to this list the prohibition of the use of an animal without a tongue, literally "tongue-less" (γλωσσότμητος), perhaps related to the Greek sacrificial tradition in which the tongue was often a priestly portion.[28] The postexilic prophetic book of Malachi provides testimony via the critique that such prescriptions were not always followed (Mal 1:6–8).

Identifying many of these blemishes archaeologically is not possible (blindness, certain diseases of the skin, etc.), though it is possible to detect blemishes that would have affected the bone. Across all contexts (domestic, royal, cultic, etc.) in the archaeological record, evidence of diseased or malformed bones is observed but it is rare. One example discovered among the thousands of bones from Area T at Tel Dan may have relevance to our discussion: a deformed tibia, likely due to an injury, found in a sacrificial deposit that is described in detail elsewhere.[29] This may suggest a violation of priestly prescription (cf. Mal 1:6–8), or may indicate that such stipulations were not in effect or applicable in that context.

More helpful in understanding the selection of the sacrificial animal of the fellowship offering archaeologically may be the results of a recent isotopic study that suggest that sheep and goats associated with sacrifice at Tel Dan were raised and grazed for their entire lives in the immediate vicinity of the tel.[30] The local sourcing of these animals may indicate that specific flocks and herds were kept for slaughter in the temple, and thus that their purity was controlled and, as a result, assured. This might have been especially important at a site like Tel Dan that shows evidence of a multi-ethnic population throughout the Iron Age,[31] and comports well with the prohibition of the use of blemished animals purchased from a foreigner for sacrifice (cf. Lev 22:25). One also recalls the Deuteronomic prescription that worshipers on pilgrimage to Jerusalem with tithe offerings were permitted to purchase animals upon arriving at the temple (Deut 14:24–26), an allowance that was maintained regarding Herod's temple in the Roman period as well, as attested in later Second Temple sources.[32]

THE SLAUGHTER OF THE ANIMAL

According to the biblical texts, the animal victim of the fellowship offering, once selected, was slaughtered, with the hand of the offerer symbolically placed upon its head (Lev 3:2, 3:8, 3:13; cf. Lev 1:4). The slaughter was performed not on the altar, as is commonly assumed, but in the courtyard, by the entrance of the sacred precinct for cattle (Lev 3:2), and, apparently, in the same location for sheep and goats (Lev 3:8, 3:13), though the wording varies slightly and it may be that this was understood to have taken place more specifically at the right side of the altar at the designated spot for the slaughter of flock animals of the burnt offering (cf. Lev 1:11).[33]

As far as can be determined from the observations of the bones when compared to ethnographic parallels, archaeological evidence from Area T at Tel Dan has indeed yielded the remains of animals that may be associated with slaughter.[34] More specifically, two specimens bore evidence of lateral cut marks on the ventral surfaces of atlas vertebrae which may in-

[24] Cf. e.g. Bethsaida in Arav & Freund 2009 and, on the animal bones, see Fisher 2005.
[25] See this author's original survey in Greer 2017b.
[26] On the date, see Knohl 2007, the earlier formulations of which are followed by Milgrom (see Milgrom 1991, 13–42).
[27] Milgrom (1991, 147) notes that the term refers to spiritual impurity in Deuteronomic literature as opposed to cultic impurity in Priestly literature.
[28] For later developments, see Hesse & Wapnish 1985, 82–83, citing Munk *et al*. 1976; note, too, the description of the examination of the sacrificial animal in Philo *Leg*. 1.166. On the tongue as a priestly portion, see Carbon 2017.
[29] See Greer 2017b.
[30] As presented in Arnold *et al*. 2021.
[31] For Iron Age I, see Ilan 1999; 2019; and for Iron Age II, see Thareani 2016.
[32] Cf. Bar-Oz *et al*. 2007 in this context.
[33] The variance in wording, could, however, be related to a text-critical issue; cf. the text-critical apparatus in the *BHS*, the standard scholarly edition of the MT, for vv. 2, 8, 13 with LXX.
[34] See the classic work of Binford 1978; 1981; and cf. more recent applications in Klenck 1995; and Grantham 1995; 2000.

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dicate slaughtering. A variety of metal instruments and several blades were also found that were likely used in the slaughter of the animals, as well as in their processing and consumption.

THE MANIPULATION OF BLOOD

The next step in the procedures laid down in the texts is the draining of the blood and, though not explicitly stated in the priestly manual, the collection of the sacrificial blood in a specialized vessel, a *mizrāq*, before it is "splashed"—a verbal form of Hebrew *zrq*, from which the nominal form *mizrāq* is derived (such a connection is lost in the LXX's rendering of προσχέω, "to pour", for *zrq*, and φιάλη for *mizrāq*)—against the altar on all sides, regardless of whether the animal was an ox or sheep or goat (Lev 3:2, 3:8, 3:13).[35] As an act central to cultic performance, the splashing of the blood was reserved for the priests.[36]

Excavations of the sacred precinct at Tel Dan have revealed evidence of a large central altar, only one horn of which has been preserved, in addition to its base, upon which such blood would have been splashed.[37] This altar may be reconstructed based on proportions from other archaeological examples of horned altars, such as the well-preserved blocks of a dismantled altar from Beersheva,[38] yielding the massive dimensions of 4.75 × 4.75 m for its square base and 3 m for its height. It may further have borne some distinctive features, such as a *yesōd* (LXX: βάσις), a low step-like structure protruding beyond the base, upon which blood would have been poured as part of sin offering rituals (Lev 4:7, 4:18, 4:25, 4:29, 4:34, 5:9); similar features may possibly be identified on the altars from Moẓa and Arad as well, with regional differences apparent between northern Israel and southern Judah.[39]

More specific to blood manipulation is the discovery of what is likely a *mizrāq* excavated in the western chambers of the precinct (*Fig. 2*).[40] Its identification is based not only on stylistic features but more significantly on the context of its discovery alongside a pair of shovels, a third broad-bladed shovel, and a sunken pot filled with the ash of animal remains. These artifacts correspond precisely to those associated with priestly "altar kits" described in the Hebrew Bible as accoutrements of the altar of burnt offering of the tabernacle and Jerusalem temple (cf. Exod 27:1–8, repeated in Exod 38:1–7; Num 4:13–15; see also 1 Kgs 7:40, 45, paralleling 2 Chron 4:11, 16).

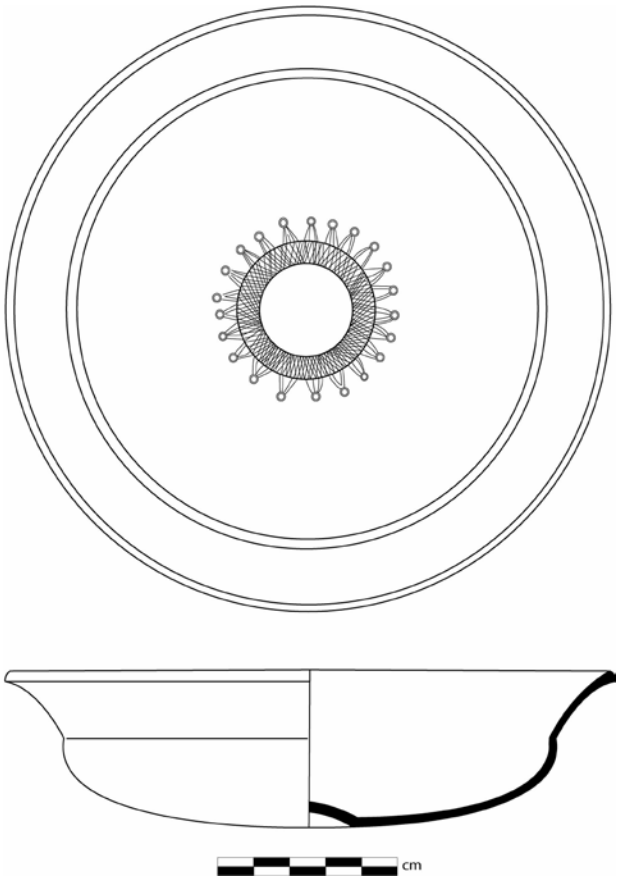

Fig. 2. A bronze bowl discovered in the sacred precinct of Tel Dan that has been identified as a mizrāq*, a ritual vessel for the collection of sacrificial blood. Illustration by J. Greer after Biran 1986, 186, fig. 15.*

THE BURNING OF FAT AND INNARDS

Following the procedures of the textual prescriptions, the animal was then disemboweled, with special attention given to the internal fat portions coating the abdominal and pelvic cavities and connecting the organs (Lev 3:3–4, 3:9–10, 3:14–15). All of these portions of fat were removed, along with the kidneys and the liver, and, in the case of the sheep, the entire tail with its fat was cut off presumably where it joins the trunk (Lev 3:9). Then, all of this was "turned to smoke" (verbal forms of *qṭr* in Hebrew; in the LXX, the action was simply described as "offered up" [verbal forms of ἀναφέρω]) on the altar (Lev 3:5, 3:11, 3:16). While at least one major ash deposit has been discovered at Tel Dan, nothing with the telltale characteristics of the burning of concentrated animal fat and bone, such

[35] The connection between the *mizrāq* and the ritual of collecting the blood to be splashed upon the altar is made explicit in the later Targums: cf. *Tg. Onk.* Exod 24:6; *Tg. Ps.-J.* Exod 24:6, 24:8; Lev 1:11.
[36] Cf. Milgrom 1991, 223 with further comments.
[37] See Biran 1994, 159–233, for a more detailed description of the finds from Area T.
[38] See the description in Zevit 2001, 171–175, with references there.
[39] As presented in Greer 2017c, and currently being prepared for publication.
[40] A full discussion is found in Greer 2010.

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as the greasy, black soil that has been discovered in Greek contexts,[41] has as of yet been identified in any Levantine context as far as is known to this author presently. Still, the immolation of the fat portions in the Hebrew *šəlāmîm*, with special reference to the fat-tail, may serve as an important parallel to the burning of the tail along with the fat-wrapped femur in the Greek θυσία.

THE BUTCHERING OF THE ANIMAL

Though not explicitly stated in the priestly manual prescriptions for the fellowship offering, the animal was then butchered before being distributed, cooked, and eaten. Drawing from the butchering details given for the burnt offering (Lev 1:6–9), we may infer that after the animal was skinned, it was decapitated and at least quartered, with the lower legs removed. Details from the prescriptions concerning the priestly portion (Lev 7:28–36), described below, make it clear that the "breast" (*ḥāzeh*; LXX: στηθύνιον) was also considered a separate unit, likely similar to the brisket cut known today.

Archaeology, in combination with ethnographic field studies and experimental projects, provides more detail surrounding these processes.[42] For example, a high percentage of metapodials (the bones of the lower legs) from both cattle and sheep/goats from Tel Dan exhibit banded cut marks encircling the distal end of the shaft, likely created during the skinning process. Furthermore, numerous joints bear evidence of cut marks perpendicular to the long axis of the associated long bones, surely the result of segmenting the forequarters and hindquarters into smaller units prior to distribution. This latter observation is significant in providing evidence for what may already be assumed: all of these processes, if the proximity of the deposition is any indication, took place within the precinct itself; that is, no stage of the process was "outsourced" beyond the temple courtyard.

THE DISTRIBUTION OF MEATY PORTIONS

Returning to the biblical texts, the next activity in the process would have been the distribution of certain portions of meat, along with various bread products (Lev 7:11–21), to the officiating priests, which has parallels in other cultures and was practiced in Greek and Roman religion as well. On the matter of what these priestly portions entailed, however, various traditions are preserved in the biblical texts, both within and beyond the priestly corpus. In the MT, followed by the Samaritan Pentateuch (SP), these traditions include a random portion associated with the shrine at Shiloh (1 Sam 2:12–17),[43] the right hindlimb (*šôq*) and breast (*ḥāzeh*) portions of the standard Priestly tabernacle tradition (Exod 29:27–28; Lev 7:28–37, 8:25–26, 9:20, 10:14–15), the forelimb (*zərôa*) portion (along with the breast and hindlimb portions) of the Nazirite tradition (Num 6:13–20), and the forelimb (along with cheeks [*ləḥāyayîm*] and diaphragm [*qēḇāh*] portions) of the Deuteronomic tradition (Deut 18:3–4).[44] In addition to these variances, the LXX systematically harmonizes differences between hindlimb and forelimb traditions, when they are at odds, and renders the priestly portions consistently as a forelimb (βραχίων) portion in each case (Exod 29:27–28; Lev 7:28–37, 8:25–26, 9:20, 10:14–15; cf. Sir 7:31);[45] such a distinction is followed by secondary Greek references in Philo (*Leg.* 1.145) and Origen (*Hom. Lev.* 5:12), as well as in the Latin Vulgate (Latin *armus* = Greek βραχίων).[46] A detailed survey of these variances suggests that two dominant traditions were in effect in ancient Israel—one assigning the hindlimb and the other assigning the forelimb to priests—and that these differences, when considered in the broader ancient Near Eastern context, may suggest affinities with northern Israelite and southern Judahite populations, respectively.[47] Regardless of whether the texts specify a hindlimb or forelimb portion, these portions constitute the "choice" portions (cf. Ezk 24:4), and, when the side of the limb portion is specified, it is always the right-sided portion that is given to the priest (cf. Exod 29:27–28; Lev 7:32–33 in MT, LXX, and SP, as well as later traditions).

It is this last detail, that of a preference for right-sided portions, that becomes an important archaeological indicator of potential evidence for priestly portions of the *šəlāmîm* offering among the sacrificial deposits at Tel Dan.[48] Such may be suggested within the sacred precinct, where two spheres of activity have been identified: one assigned to the activities of the priests, and the other to the activities of common worshipers. When the bones from a number of buried deposits were

[41] E.g. Romano & Voyatzis 2014. Note especially "Appendix 3: The Micromorphology of Mt. Lykaion, 2006–2010" by S.M. Mentzer, which identifies the "ashy, greasy black soil" and "fat-derived char" as the result of the intentional burning of animal remains.

[42] See Greer 2013, especially 43–96, for details regarding evidence of cut marks and the associated processes.

[43] Note, however, that Qumran *4QSam*[a] adds the hindlimb and brisket portions; cf. McCarter 1980, 78–79; Fincke 2001, 9, 285 pl. III.

[44] The LXX renders the Deuteronomic prescriptions as σιαγόνια for *ləḥāyayîm* ("cheeks") and ἔνυστρον, "fourth stomach", for *qēḇāh* ("diaphragm"). The latter is surely more problematic than the former (cf. the expected φρήν, διάζωμα).

[45] See later attempts at harmonizing the Deuteronomic and Priestly prescriptions in the Temple Scroll from Qumran (cf. 11QT Col. 20:14–16, Col. 21:2–5, Col. 22 [with fragments from 11Q20 Cols 5–6]:8–11; also cf. *m. Hullin* 10:1, 10:4, 11:1).

[46] Josephus (*AJ* 3.229) curiously provides an additional variant in his reference to the Lev 7:32–34 priestly portion as including τὴν κνήμην τὴν δεξιὰν ("the right lower leg"), perhaps being noncommittal on whether the portion was from the forelimb or the hindlimb.

[47] See Greer 2019 for the full argument; cf. Joosten 2015.

[48] For the full discussion, see Greer 2013, 43–96.

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analyzed and grouped according to these two spheres of activity, several non-random distribution patterns were identified and suggested to relate to various sacrifices within the priestly system. Evidence for priestly portions of the *šəlāmîm* offering was suggested by the fact that 67% of the meaty longbone portions from the forelimbs and hindlimbs of sheep and goats in the priestly area were from the right side of the animal and 33% from the left, whereas in the area of the common worshipers the trend was reversed: only 37% of the meaty longbone portions from the forelimbs and hindlimbs of sheep and goats were from the right side and 63% were from the left. Thus, the higher percentage of right-sided limb bone fragments in the area of the priests may be explained as the remains of meals in which the priests consumed their portions of *šəlāmîm* offerings surrendered by worshipers, as is also indicated by the predominance of left-sided portions in the courtyard where the worshipers consumed the rest of the animal.

THE PREPARATION AND CONSUMPTION OF MEAT IN THE SACRIFICIAL MEAL

After the priestly portion was distributed, the worshipers prepared and consumed the sacrificial meat. Few prescriptions regarding the meal itself are laid out in the texts, though details are given regarding the duration of the feast in that it must be completed by the following morning (Lev 7:15–18; an additional day is added for votive and freewill versions of the fellowship offerings), as well as stipulations concerning the purity of both the worshiper and the meat (Lev 7:19–21), in addition to prohibitions concerning the consumption of blood and fat (Lev 7:22–27). From these details we can surmise that, as is explicitly stated in the case of the sin offering for priests (Lev 6:26), the sacred feasts most likely would have taken place within the precinct itself, for it would have provided an environment in which the duration and purity of the feast could be closely monitored.

Archaeological material from the sacred precinct at Tel Dan is congruent with such details.[49] The purity regulations may find some resonance in the bathing installations discovered in the sanctuary, both in the presence of a stepped pool and a large basin, and the discovery of several oil lamps is consistent with the notion that feasts continued into the night. Furthermore, the entire area bears numerous signs of preparation and consumption in the form of animal bone remains that not only exhibit cut marks associated with processing, as mentioned above, but also those associated with preparation techniques. Chief among these are numerous specimens that exhibit spiral breakage patterns and/or deep depressions typical of those that appear on "green" bones

Fig. 3. An example of a bone specimen exhibiting chop marks from the sacred precinct of Tel Dan. Photograph by J. Greer.

(i.e., fresh bones surrounded by flesh) that have been chopped with cleaver-type instruments (*Fig. 3*). The size of the majority of bone fragments is also consistent with sizes of the cuts of meat suitable for being placed in typical cooking pots. Other bones show cut marks associated with the carving of meat away from broad bone surfaces, such as the pelvis. Numerous remains of cooking pots, in addition to other serving and eating vessels, have also been recovered in high concentrations.

Taking the evidence as a whole, we suggest that the disarticulated quarters and other meat units were chopped into smaller portions that included the meat, associated sinew, bone, and marrow, which were then deposited in cooking pots with liquids and other spices and ingredients, as is commonly observed in contemporary ethnographic parallels.[50] The portions were then cooked in stews, as was common in Greco-Roman practice,[51] based on the numerous cooking pots discovered as well as the breakage patterns and the fact that very few specimens exhibit burn marks typical of roasting on the ends of bones. Biblical texts, too, prescribe this manner of cooking both explicitly and obliquely for cultic meals (e.g., Exod 29:31; Lev 6:28, 6:31; Num 6:19; 1 Sam 2:13, 2:15; 1 Kgs 19:21; Ezek 46:20, 46:24; cf. Zech 14:21); the only exception would be the earliest prescriptions for the Passover meat, which was roasted (Exod 12:8), but even here later traditions seem to incorporate stewing methods (cf. Deut 16:7,

[49] See Greer 2013, 43–96, and the synthesis at 97–124.

[50] Cf. Klenck 1995; Grantham 1995; 2000.

[51] Cf. Ekroth 2007.

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and note 2 Chron 35:13 apparently aiming to harmonize the two different traditions). These preparation methods also serve as the source for graphic metaphoric allusions in the prophetic literature (e.g., Ezek 24:3–12; Mic 3:3).

The consumption itself likely took place in family units spread in and around the precinct, such as we suggest at Tel Dan, gathered around shared cooking pots out of which the stew would have been served in shallow bowls. The variety of vessel forms typical of domestic contexts employed, alongside the different cuts of meat as well as further details from the biblical traditions, suggest a less-regulated environment, perhaps one in which worshipers provided their own assemblages and foodstuffs rather than relying on a centralized authority, such as the temple institution, for redistribution. This situation at Tel Dan, however, seems to change over the nearly two centuries of feasting that took place there, eventually moving to a more restricted environment. It is during this later phase of feasting that we see the strongest evidence of the right-left portion distribution, discussed above.[52]

Future directions

Regardless of the mechanics of sacrifice and the details concerning the sacrificial animal in ancient Israel that have been laid out here, taking the life of an animal and sharing in the consumption of its flesh was always considered a highly charged, sacred event and the emphasis was on the disposition of the worshiper and the efficacy of the procedure as they pertain to the greater significance of the act which often remains shrouded in the texts. The sacrificial animal, however, serves as a conduit to convey these deeper meanings and thus understanding the mechanics of the procedures may, in fact, shed light on other dimensions as well. These may include notions of fellowship with the divine and with the community in the sharing of the meal, or elements of transference and purification or atonement that may be present in the slaughter and blood manipulation, or the leveraging of these conceptions for social power by different groups or individuals. It is hoped that a comparison of the sacrificial animal in ancient Israel, as described here, with Greek, Etruscan, and Hittite sacrifice discussed elsewhere in this volume, in addition to those systems from Mesopotamian and Egyptian contexts, will lead to further fruitful comparisons of the cognitive and social implications of these acts.

JONATHAN S. GREER
Grand Valley State University
greerjo@gvsu.edu

[52] Greer 2014.

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KATIE A. RASK

15. Animal sacrifice in parts

Theorizing bodily division in Greek and Etruscan ritual killing

Abstract

Evidence from Etruria and Greece suggests that sacrificial practices involved a rich, flexible collection of activities. Most forms of animal sacrifice hinged on the manipulation of the animal body in some way, frequently with division or disarticulation. This article addresses the theoretical background to bodily division in studies of Greek sacrifice, before exploring Etruscan practices with a similar focus on partition and processing. From animal skins worn by haruspices to blood used in funerary rituals, the various animal parts had religious potency, symbolism, and social significance. Zooarchaeological material is crucial for reconstructing how the animal body was divided and employed, but the religious use of organic portions, otherwise prone to decomposition, can be studied using other archaeological sciences such as lipid analysis. The surviving data suggests that Etruscans found religious value in skins, skulls, meat, bones, organs, and blood. This article utilizes, but also modifies, insights from David Frankfurter and Kathryn McClymond in order to theorize the efficacious aspects of sacrificial bodies, as well as procedural flexibility within sacrificial processes.*

Keywords: Greek animal sacrifice, Etruscan animal sacrifice, Roman religion, religious tradition, iconography, zooarchaeology, ritual killing, butchery, hide, skull, meat, entrails, haruspicy/extispicy, blood, fat

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Religion in the land of Etruria has long fascinated modern imaginations. Its gods and demons, prophetic accounts and bookish habits, distinctive material culture, and uncanny natural portents—in many ways so unlike the religious traditions of Greece and Rome—have drawn frequent scholarly inquiry. Yet Etruscan animal sacrifice remains largely unexplored in wider theoretical discourses about Mediterranean religions. Ritual killing in Etruria emerges as a complex and varied set of activities, studied most fruitfully through primary archaeological data and material culture, and augmented by limited non-native texts that address it. In what follows, I argue that our imperfect knowledge of Etruscan animal sacrifice nevertheless nuances our understanding of animal bodies in Greek religious contexts, particularly regarding the various ways the sacrificial body was divided and employed.

Taking into account past critical assessments of Greek sacrificial categories and Etruscan data, I indicate a need to refine the procedural elements with which we conceptualize sacrifice. My argument utilizes, but also critically modifies, insights from David Frankfurter and Kathryn McClymond, in order to address the division and manipulation of sacrificial bodies. Although division has played a starring role in debates hinging on the value of meat and the significance of consumption, I contend that overall patterns of bodily partitioning are rather more multifaceted.

After a discussion of the theoretical background to animal division in Greek sacrifice, I will introduce and explore Etruscan sacrifice with a similar focus on partition and processing. I will survey the evidence for Etruscan manipulation of divided animal bodies, chiefly with regard to skins, heads, meat, organs, and blood. The evidence indicates a wider array of procedural types and also impacts how we characterize the processing and transformation of the animal body. To conclude, I argue that partition has implications for wider studies of ritual killing.

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Greek sacrifice and scholarship

For some time, scholars have debated and critiqued academic uses of the term "sacrifice".[1] Despite the prominence of the topic in Mediterranean studies, there is often little agreement on a standard definition of the term, with some studies addressing only burnt offerings at an altar, and others broadening the semantic range with the inclusion of a more varied body of evidence.[2] In recent years, the term and category have been problematized through historiographic contextualization, source criticism, and theoretical reformulation. Some of the most powerful criticism of the term "sacrifice" emphasizes that it is a discursive appellation, used as part of both ancient and modern ideological arguments. As Daniel Ullucci hints, modern theorists "are constantly making determinations about what matters in sacrifice, what counts as a sacrifice, and what sacrifice does",[3] in effect participating in a continuing discourse and "rhetoric of sacrifice".

To a certain degree, we still have this problem in the study of Greek animal sacrifice.[4] Scholars debate theories about the purpose of sacrifice in Greece and its central characteristics: communing with the gods, gifting or honoring the divinities, establishing reciprocity, communicating with other beings. Special attention has centered on the sacrifice of animals at altars and the subsequent feasts—the *thysia*, *trapezomata* and *theoxenia*—but we know that in Greece animals were ritually killed in a variety of instances and forms. Scholarship increasingly challenges the older emphasis on single sacrificial components, such as the feast or the animal's slaughter.[5] To this end, Robert Parker aptly wondered: "is it legitimate to treat participatory sacrifice as one thing and a pre-battle killing as quite another, rather than as sub-divisions of a single phenomenon?"[6] Others now question whether there is a "single phenomenon", or rather a series of ritual sequences that involve the killing of animals for religious purposes.[7] McClymond's influential model offered an alternative to reductionist treatments of sacrifice, with a polythetic approach that allows for the multiplicity of sacrificial rites in antiquity.[8] She identified a number of connected but discrete activities that form a matrix lending sacrificial character to ritual acts.

Envisioning a series of related processes allows us to better account for the Greek religious killing of animals. It also allows us to emphasize the different ways the animal body was used, and the various animal parts employed. In addition to the complete immolation marked by the archaeologically rare holocaust, blood played an important role at multiple points, splashed on altars, collected in vessels, and spilled during the *sphagia*.[9] Animal sacrifice in the *Greek Magical Papyri* gives a special role to *pneuma* and blood, amongst other substances that were used as efficacious offerings.[10] Not only were animal heads and horns displayed, mined for their succulent meats, and burnt on altars, they have a long history of special treatment.[11] What these sources indicate is that there were numerous ways in which ancient Greeks used an animal's body (and thus their death) to interact with non-human powers. Multivalent animal bodies consecrated or purified with their blood, provided organs and soft tissues for divination, accompanied the deceased into the afterlife, and compelled the gods.

Although interested in the multiplicity of sacrificial procedures, McClymond explores one particular cluster of crucial activities that will be central to the discussion that follows. In 2002, she argued that the division of the animal's body is one of the most important elements in Vedic traditions, noting that death "makes the animal ritually available for the elaborate manipulation, division, and distribution that follow."[12] Frankfurter similarly characterizes animal sacrifice as something related to bodily manipulation and division. Revisiting Henri Hubert and Marcel Mauss, he explores their notion that sacrifice makes something sacred. For Frankfurter, sacrifice transforms bodies, via a bodily rendering accomplished through some form of "processing" that breaks it down into parts or residues containing sacred power or superhuman efficaciousness. Sacrifice "produces sacred materials for this world in the course of ritual transformation";[13] in short, the sacrificial process is "the rendering of sacred stuff".[14]

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[1] An intellectual history of the most influential modern theories of sacrifice, can be found in Strenski 2003. For an overview of the literature regarding Mediterranean sacrifice, see Ullucci 2015.

[2] Already Kirk (1981, 41) noted that "the whole study not only of sacrifice but also of other ritual acts has been bedeviled by a lack of system; in particular by the failure to establish, and to assign reasonable and agreed terms to a system of categories". For problems of definition, especially regarding Greek sacrifice, see Ullucci 2015, 424–425; van Straten 2005 and bibliography in *note 5* below.

[3] For a summary of some of these arguments, see Ullucci 2015, 393–394.

[4] For historiography, theoretical overviews, and general bibliographies, see Graf 2020; Lippolis *et al*. 2018; Bielawski 2017; Hitch & Rutherford 2017; Ekroth & Wallensten 2013; Faraone & Naiden 2012; Graf 2012; Lincoln 2012.

[5] On issues of definition: Hitch & Rutherford 2017, 9–10. Elsner (2012, 161) critiques the feast as the endpoint of sacrifice. Frankfurter (2011, 87) problematizes "the capacity of the category sacrifice, so loaded with Frazerian, Girardian, and theological baggage, to describe effectively the slaughter of animals in religious ceremonies."

[6] Parker 2000, 308.

[7] Frankfurter 2011. Hitch & Rutherford (2017, 2) characterize forms of sacrifice as different "scripts", complicated through actual practice.

[8] McClymond 2008; 2002.

[9] Ekroth 2005. See now Larson in this volume, *Chapter 11*.

[10] Zografou 2011; Johnston 2002, 353–357.

[11] On consecrated horns, Forstenpointner *et al*. 2013; Graf 2012, 48–50. See also MacKinnon, Smith, Zachari and Georgoudi in the present volume, *Chapters 5–8*.

[12] McClymond 2002, 226.

[13] Frankfurter 2004, 513.

[14] Frankfurter 2004, 518.

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Disarticulation and division

The partition and bodily dissolution that McClymond and Frankfurter describe can be traced archaeologically, via material culture and zooarchaeology. Focusing on the division of the animal body is nothing new in sacrificial theory, of course, especially in the long history of Greek studies. Scholarship has theorized the division of the animal's body in a variety of ways over the years.[15] For example, in 1912 Friedrich Puttkammer carefully gathered the related textual sources (including so-called "sacred laws") for the division of the animal body in Greek sacrificial procedure, with an emphasis on meat. The paradigm he employed remains familiar today, with parts of the animal divided between gods and their priests (ἱεραὶ μοῖραι) and others for mortals of various civic standing (*partes profanae*). In his characterization of public sacrifice, Puttkammer also reconstructed the distribution apparatus, consumption of sacrificial meat, and the outcome for non-distributed animal parts (predominantly the skin).[16]

Of special interest has been the relationship between the division of the sacrificial meat and the social and civic hierarchy of the sacrificing community.[17] For those following the sociological tradition of Numa Denis Fustel de Coulanges, William Robertson Smith, and Émile Durkheim, the division of the animal between gods and humans, and the subsequent meat distribution and consumption among mortals, fostered commensality. Jean-Pierre Vernant and Marcel Detienne lay the focus on cooking and eating which they emphasized using the Prometheus story. That tale mythologized the sharing of the animal between two main groups of participants, divinities and mortals.[18] For others, the social meaning of the divided animal is not egalitarian, but rather hierarchical; sacrifice serves as "an occasion for differentiation", either between mortals and the divine or among mortals themselves.[19]

In many sociological and structural interpretations the animal body is conceptualized less as a divided creature and more as edible cuisine. Jean-Louis Durand, however, is explicit in his description of what he calls "the dismantled body".[20] He writes:

> the animal's body is completely taken apart, as if it has exploded in such a way as to coincide with the society of men in the city organized around it. The trajectory assigned to the animal's body, beginning with the splanchnic center, slice after slice, reaches out to the whole social body. The ultimate *raison d'être* of the edible body is to be blended with the civic space, conforming ultimately to an exact geometry.[21]

In Durand's particularly evocative description, the dismantled body, transmuted through butchery and explosion, became civic space and society. It was the dismantling and partition that allowed the transformation of the animal body into the social body.

Not all partition theories have been sociological, of course. The religious power of the body's dismemberment and use in rituals was addressed by Classicist Karl Meuli.[22] He used ritual killing to seek the roots of Greek practice in a much older substrate of religious history, primitive hunting. After humans killed and butchered the animal, he claimed, their treatment of the meat, bones, and skin enabled sacred beings to refashion the dead animal for the hunting needs of future generations.[23] Handling the body parts allowed a metaphysical process of divine reversal that ensured the continuation of animal and human life.

The availability of new data thanks to zooarchaeology has affected how scholarship treats animal partitioning. Understandably, sacrificial studies employ bone analyses to reconstruct observable practice, as well as to connect bone material to known sacrificial terminology.[24] This new evidence also has prompted development of new theories about ritual killing.[25] Bone materials highlight some of the transformative activities that Frankfurter describes, as well as stages in McClymond's sacrificial matrix, including the selection, killing,

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[15] For a reconstruction of bodily division and apportionment during Greek sacrifice, see Ekroth 2008.

[16] Puttkammer 1912.

[17] In fact, Naiden argues for the social significance of the "dispenser of meat" in sacrificial rituals, see Naiden 2012, 77.

[18] Faraone & Naiden 2012, 1–2; Detienne & Vernant 1979. A recent example traces sacrificial commensality in Athenian vase-painting: Bundrick 2014.

[19] Scheid 2012, 86; Naiden 2012; Amadasi *et al*. 1988. Ekroth (2008) recognizes both "equal portions" and "choice portions" during meat distribution. She also argues that "the division of the sacrificial victim between gods and men constituted the fundamental part of Greek animal sacrifice of the *thysia* kind." Rather than focusing on consumption or sharing, she specifically articulates division as the crucial act (Ekroth 2013, 113). Carbon (2017) highlights that, unlike the rest of the community, priests and gods frequently shared the exact same choice portions, first presented to the gods and then taken as priestly prerogatives. He also notes, however, that in other cases, small cuts of meat were presented to the gods as "first fruits" by worshippers, with the result that mortals ultimately shared the same cuts as the divine recipients.

[20] Durand 1989, 100.

[21] Durand 1989, 104.

[22] Meuli 1946.

[23] Graf 2012, 36 and 45; Wunn 2006, 295.

[24] Reconstruction of ancient practices indicate that bodily division might emphasize particular meat-bearing limbs, edible portions (e.g. tongues, organs), or specific sides. See, for example, Ekroth 2017; 2013; 2008; MacKinnon 2013.

[25] For example, based on archaeological data, Schwartz (2012) emphasizes four main types of sacrifice: offerings (e.g. consumption), symbolic sacrifices (e.g. to seal a treaty), retainer (i.e. funerary accompaniment), construction sacrifice (e.g. foundation sacrifice).

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and subsequent treatment of animal bodies. Through careful stratigraphic and contextual comparisons, zooarchaeology's emphasis on anatomical parts, treatment of the body, and burial patterns has been especially significant for studies of Greek sacrifice. As a method of inquiry, it highlights the "processing" and "rendering" of the animal carcass, as well as deposition patterns and "manipulation".

In what follows, I will explore Etruscan sacrifice using the framework of McClymond's and Frankfurter's models. An overview of the evidence shows that their sacrificial characterizations require modification in order to better account for Etruscan contexts. At the same time, considering the treatment of carcasses and the necessary materials procured through the animal's death encourages us to consider new aspects of Etruscan practice.

Survey of Etruscan sacrifice

In Greek studies, scholars possess a variety of textual and archaeological materials, including literature and "ritual norms"[26] that provide vocabulary for specific types of ritual killing and animal parts. In Etruscan studies, we are hindered by the nature of our sources, with a lost literary tradition, incompletely understood epigraphic corpus, and a sometimes puzzling religious visual tradition. In what follows, I will first outline Etruscan sacrifice as reconstructed from textual, visual, and archaeological evidence, before looking more closely at partitioning and processing.[27]

TEXTS AND SACRIFICE

Although over 10,000 Etruscan inscriptions survive, most of the preserved religious documents are relatively short dedicatory inscriptions.[28] Some of the remaining texts appear to be festival and ritual calendars, and seem to indicate the recipient deity and presumably details about the requisite offerings and actions. These texts include the Magliano Lead Tablet, the Capua Tile, and the 4th-century BC linen book, the Liber Linteus.[29] For the most part, these texts are not well understood, especially with respect to ritual vocabulary. Quite a bit of disagreement exists amongst Etruscologists about the translations of words for ritual actions and items.[30] Giulio Facchetti laments that many unconfirmed religious terms have been identified with "guessology".[31] Currently, there is no consensus among linguists on terms denoting animal sacrifice or even the terms identifying most animals.

Beyond the epigraphic evidence, the Etruscans had developed a literary religious tradition,[32] continuously augmented by successive specialists. The Tarquinian priest and magistrate Laris Pulenas, for example, wrote a book on haruspicy in the 3rd century BC,[33] while in the 1st century BC, Aulus Caecina wrote treatises on religious matters and divination, presumably in Latin.[34] The religious *libri etruschi* must have been robust, given Cicero's remark that "as new things were learned and tested against [older texts], they were added to the earlier body of knowledge."[35]

Roman authors serve as our main source for the accumulated Etruscan religious tradition, which they sometimes described as the *etrusca disciplina*. Its texts covered a variety of topics, hinted at by descriptors such as the *libri rituales*, *libri fatales*, *libri fulgurales*, etc.[36] We might assume the *libri rituales* included discussion of animal sacrifice. By the 1st century BC there seems to have been a market at Rome for translations and treatises on Etruscan religion, with Etruscan literati mingling closely with Roman intellectuals and upper-class society. These Etruscan "literate cultural producers" or "literate specialists"[37] must have written about sacrifice, but we can only guess at any theoretical or theological aspects to their output.

Roman authors do provide minor hints about Etruscan sacrificial practices; for example, Varro relates that in Etruria pig sacrifices took place at the beginning of wedding rites.[38]

[26] Although previously described as "sacred laws", reassessment of the epigraphic classification prompted the *Collection of Greek Ritual Norms* (*CGRN*) project.

[27] For general introductions to Etruscan sacrifice, see Torelli 2018; Raffanelli 2013; Rask 2014; Donati & Rafanelli 2004; Hugot 2003.

[28] Maras 2009. For Etruscan inscriptions, see the *Corpus Inscriptionum Etruscarum* (*CIE*) and Rix & Meiser 1991.

[29] Radiocarbon tests during the 1980s dated the linen's weaving to 390 BC ± 45 years (Turfa 2006a, 75, n. 74). Facchetti (2005, 360) accepts that that the scribe of the Liber Linteus was not actually familiar with the script.

[30] Terms related to *nuntheri*, *zusleva*, *thezeri*, and *fler* are often presented as sacrificial vocabulary.

[31] Facchetti (2005) argues that while Etruscan morphology is better understood, vocabulary is problematic, especially with respect to longer texts.

[32] Tablets and scrolls appear in Etruscan art beginning in the first half of the 5th century BC, see van der Meer 2011, 81.

[33] His sarcophagus from Tarquinia is preserved now in the Museo Archeologico Nazionale at the same site (inv. 9804). Maggiani 2005, 54, no. 12.

[34] The Volterran Caecina family were well-respected as haruspication experts, see Tweedie 2015; Turfa 2012, 286–287.

[35] Cic. *Div*. 2.50: *eam postea crevisse rebus novis cognoscendis et ad eadem illa principia referendis*. The passing down of written knowledge and incorporation of later observation borders on the scientific. On the overlap between Etruscan religious and scientific thinking, see Cherici 2013.

[36] For the problem of Roman literary evidence for the study of the Etruscans, see Turfa 2006a.

[37] Stowers (2011, 41–51) employs these terms while exploring the practices of Greek religious experts, but the notion of literate specialists seems especially appropriate in the Etruscan case.

[38] Varro, *Rust*. 2.4.9.

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Late Republican Roman authors took particular interest in Etruscan divinatory arts; references to Etruscan haruspication, or extispicy, appear frequently in Latin sources, and Etruscan practitioners were famed for their skill. Cicero remarks that the Etruscans sacrificed a great deal and had given much attention to understanding the resulting entrails.[39] Through the process of animal sacrifice, haruspices of Etruscan descent played an important role in 1st-century BC Roman politics, if not earlier.[40]

Notwithstanding our efforts to mine these authors for details about Etruscan culture and religion, the surviving non-native literary sources date to a time when many cities in Etruria had been under Roman control for centuries. Visual culture, in contrast, does provide us with an authentic Etruscan viewpoint.[41] Artists and illustrators likewise engaged in interpretative practices; presumably they were not religious experts like the "literate specialists", but depictions of religious practices should be understood as part of a process of visual discourse.

IMAGES AND SACRIFICE

The earliest clear depictions of animal sacrifice in Etruria date to the early 6th century BC,[42] but they become less common by the 3rd and 2nd centuries BC. Images featuring parts of the process appear on pottery (including bucchero, black-figure, and red-figure ceramics), bronze artifacts (including mirrors), carved gems and seals, and sarcophagi and ossuaries. Representations of altars occur in several artistic contexts, but animals are not always included in these images. In those cases when flames are indicated, the wood of the altar's fire is often stacked in a lean-to fire lay; given the Etruscan interest in special woods (according to the Romans), one wonders if specific woods were used or somehow codified. There are no preserved images showing the animal's tail curling in the fire, as in Greek examples.[43] Instead, depictions of animals led in procession offer more concrete details. Images connect pigs, goats, cattle, deer, and birds to altars, although zooarchaeological evidence indicates a wider array of animals may have been present in sanctuaries.[44] Artists seldom emphasized the moment of killing, but representations do illustrate ritual tools and participants.[45]

It is difficult to reconstruct sacrificial practices from these images. Medium, genre, and local conventions impact the representations, and there is often a rhetorical emphasis on certain phases in the process over others.[46] The Greek iconographic motif that highlights a nexus of humans, animals, and altars is much less frequent in Etruria, and the presence of gods in depictions of animal sacrifice is rare.[47] Etruscan dedications do not typically illustrate sacrificial activity, and the votive reliefs and painted *pinakes* showing processions in Greece do not usually occur as part of Etruscan votive habits. Occasionally artifacts portray sacrificial processions, but few identifiable details allow us to locate the rituals in sanctuaries. In fact, much of the preserved sacrificial imagery comes from funerary contexts. Certainly this may be a feature of the higher levels of artifact preservation in tombs, but also a sculptural tradition which illustrates processions on ossuaries.[48]

To complicate matters, at times the visual culture (especially vase-painting) of sacrifice seems to display a mix of Etruscan and Greek sacrificial motifs.[49] Scenes showing satyrs participating in rituals and banqueting may be inspired by Attic vase painting, always popular in Etruria. It has been argued that episodes of satyrs involved in sacrifice tell us little about native Etruscan ritual; instead they may reference Attic workshop output and Athenian rituals.[50] Likewise, the use of a Caeretan hydria to reconstruct Greek sacrificial butchery is problematic. Scholars have used the 6th-century BC Ricci

[39] Cic. *Div.* 1.93.

[40] On Etruscan divination, see Rollinger 2017; de Grummond 2013; Turfa 2012, 32–33; Briquel 2004.

[41] For treatment of Etruscan sacrificial imagery, see the works of Hugot 2010; 2008; 2006; Frère *et al.* 2006. The most comprehensive collection of sacrificial imagery to date can be found in his multivolume dissertation, Hugot 2003.

[42] A krater (*c.* 590 BC) found in the Banditaccia necropolis at Cerveteri, showing a procession (with bovine) at an altar: Cerveteri, Museo Archeologico Cerite 19539; Frère *et al.* 2006, 171–172, fig. 7.

[43] van Straten 1988. See also Morton's contribution to this volume, *Chapter 2*.

[44] Rask 2014, 291–300.

[45] With respect to the moment of killing, on a sarcophagus covered in Trojan War narratives, Odysseus stabs the throat of a ram, its muzzle pulled back towards the sky (Orvieto, Museo Civico, from Torre San Severo); *LIMC* VII (1992), 975, s.v. Odysseus/Uthuze, no. 82 (G. Camporeale). On rings and inscribed stones, the sacrificer sometimes raises a knife over an animal at the altar, as if about to strike. More blatant are two mirrors that may show bull sacrifices, with a knife and axe raised to slay the beast (presuming the episodes actually show sacrifice, given that no cult trappings appear): female with axe (Donati & Rafanelli 2004, 145, no. 54; London, British Museum 720); male with knife (Geneva, Musée d'Art et d'Histoire I 777; Hugot 2003, 628, Z11). Scenes with mythical humans as victims at the moment of sacrifice are quite common, especially on mass-produced ossuaries and sarcophagi from the Hellenistic period (Hugot 2006; see the items collected in Steuernagel [1998], several of which cannot be assuredly connected to Greek narratives).

[46] Hugot 2010; 2008; 2003, 420–429.

[47] Hugot 2008. Although Etrusco-campanian pottery illustrates gods seated before flaming altars, the artists chose not to show animals and only occasionally do single worshippers attend. On Greek influence in these scenes: Hugot 2010.

[48] Altars appear on vases found in tombs, for example: Hugot 2010. Altars and sacrifice represented on ossuaries: Hugot 2006.

[49] Hugot 2010; Frère *et al.* 2006; Haase 2005.

[50] Haase 2005. On satyrs in Etruscan sacrifice imagery, Hugot 2008, 338–341.

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Hydria,[51] excavated in the Banditaccia cemetery of Cerveteri (Caere), to explain the details of Greek sacrifice and butchery.[52] The use of this imagery to elucidate Greek practice has occasioned fierce debate amongst Etruscologists, given that it was produced for a local audience in Cerveteri.[53]

ZOOARCHAEOLOGY AND SACRIFICE

Archaeological data and the discovery of sacrificial infrastructure dramatically increases what we know about ritual practice in Etruscan regions. While the zooarchaeological evidence from Greece and Italy has become well-documented in the last two decades, the bone evidence for Etruscan religion has not received a comparably sustained methodological and theoretical treatment. At the basic level, evidence from ritual contexts suggest that animal bodies received differential treatment, including division and apportionment, symbolic or structured deposition, burning at an altar or cooking, and the burial of complete or partially articulated bodies.[54]

Although details of the religious selection and processing of animals are not well-understood, burnt animal sacrifice probably did occur at some Etruscan altars. Burnt bones and ashy soil have been found at altars, such as at Veii's Portonaccio Temple.[55] At the Sanctuary of Pyrgi (the port town of Caere), excavators noted burnt charcoal mixed with bone fragments at several altars, including Altar Zeta (in use until the end of the 3rd century BC).[56] In most cases across Etruria, zooarchaeological analysis of altar debris remains unpublished, meaning that few conclusions can be made about the extent to which burnt sacrifice occurred and any body parts which may have been offered via fire rituals. Cooking and feasting remains appear in the archaeological record at sanctuaries, on both a small and large scale. For example, in the southern portion of the Pyrgi sanctuary, the leveling fill of the two piazzas consisted of bones compacted with pebbles and charcoal: the Piazzale levelling deposit contained some 5,885 fragments of bone, teeth, and horns from mostly domestic animals.[57] The relationship between feasting remains, altar debris, and butchery refuse is not well-understood.

At Etruscan shrines, it is not uncommon to find animal bones gathered and deposited in purposeful or ritualized manners, placed in vessels, wells, or deep pits.[58] Tarquinia provides rather dramatic examples: in the 7th century BC, goat and pig bones were buried in a pit with feasting vessels and a folded bronze shield, a trumpet, and a lituus. Together with the vessels placed in the neighboring pit, it seems that the artifact burials occurred at the same time as ceremonial drinking and eating.[59] Curated bones have also been associated with structured deposition of animal bodies, such as in the "Repeated Deposit" at Tarquinia;[60] from the 7th through 5th century BC, several subsequent deposits occurred, beginning when a portion of a bovine was sealed under tile, then later burials of vessels (*olle*) containing various bones and cereals.[61]

The burial or special treatment of animal bodies in various stages of articulation is especially attested in necropoleis, where a connection between sacrificial ideology and funerary contexts seems evident.[62] Inhumation of horses with chariots and carts has been documented throughout Etruria.[63] Other animals were deposited outside of tombs or together with a human burial. In a quite interesting case from the 7th century BC, the Tomba Principesca in Chianciano Terme, excavators discovered animal bones together with the cremated remains of the principal burial. Although few in number, the bones had been burnt white and deformed by heat; a pig, a bovine, and a sheep/goat proved identifiable. It seems that the animals had been burnt on the pyre and their bones gathered up with

[51] Rome, Villa Guilia; Donati & Rafanelli 2004, 152, no. 126.
[52] Most famously Durand (1989, 92–100).
[53] For the Ricci Hydria and Etruscan sacrifice, with bibliography, see Hugot 2016, 206–207; Frère *et al.* 2006. The Caeretan hydriai date to around 530–510 BC, and although their Caeretan provenance is undeniable, the artists are usually described as East Greek on stylistic grounds and thanks to the occasional Greek label. Bonaudo (2004) contends that regardless of the vase-painters' origins, they worked in an Etruscan context and the vases should be interpreted in such. Warden (2013, 361) summarizes, "a Greek artist working at Cerveteri producing Campana dinoi or Caeretan hydriai would have been working for Etruscan patrons, possibly even as a slave, just one of many artisans involved in producing objects for elite consumption and display." Whether the vase should be interpreted as Etruscan, Greek, or a mixture remains an open question.
[54] Introductions to Etruscan and Italian sacrificial patterns as reconstructed from zooarchaeological material include: Trentacoste 2021; 2013; Bartoloni *et al*. 2018; Belelli Marchesini & Michetti 2018; Giacobbi & Stopponi 2018; De Grossi Mazzorin & Minniti 2016; Rask 2014; Lepetz & Van Andringa 2008; 2003; Van Andringa 2011; 2007; Bouma 1996, 228–238. For recent treatments of Greek material, see Lippolis *et al*. 2018; MacKinnon 2018; Ekroth 2017; Ekroth & Wallensten 2013.
[55] Baglione 1987, 414–416 (no anatomical analysis published).
[56] Ambrosini & Michetti 2013, 135–146; Baglione & Belelli Marchesini 2013. Ash and bones found at the "*eschara*" along Wall Tau (Baglione & Belelli Marchesini 2013, 117); Altar Epsilon, with its burned animal bones and charcoal (Baglione & Belelli Marchesini 2013, 117); ashes and small bones found around the row of square bases (or altars) set in front of the Venti Celle building (Baglione & Belelli Marchesini 2013, 112–113). Claudio Sorrentino's 2017 publication of the Area Sud bones was not available to me at the time of this writing.
[57] Baglione 2008; Sorrentino 2005.
[58] Trentacoste 2021; Belelli Marchesini & Michetti 2018; Colivicchi *et al*. 2016, 434–435; Rask 2014, 290–295.
[59] From the "Monumental Complex" of Pian di Civita, Bedini 1997.
[60] Bagnasco Gianni 2006; 2005. For what may be other examples of curated bones in Italy, see Trentacoste 2013; Bouma 1996.
[61] Bagnasco Gianni 2005, 92: "*Un'unica grossa porzione di bue*". The final publication of this zooarchaeological material is in progress.
[62] Prayon 2010; Hugot 2003, 20–133.
[63] For horses buried with chariots in Italy, see Cerilli 2014, 47–48; Emiliozzi 1997.

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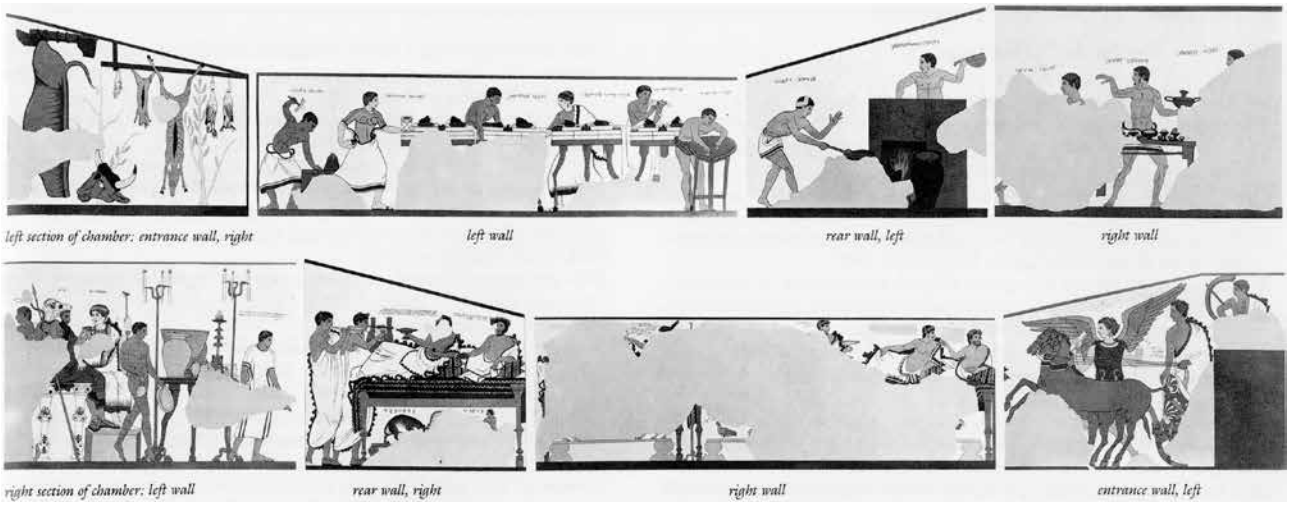

Fig. 1. Reconstruction of wall-paintings in the Tomb of Golini I, owned by the Leinie family. Dated to the mid-4th century BC. Orvieto (Volsinii Veteres). After Steingräber 1985, 279, fig. 43.

those of the deceased.[64] Additionally, butchered animal remains result from the feasting that seems to have been such an important part of funerary rituals.[65] Tools reveal ceremonial consumption as well. Excavation in Pisa found an assemblage of related items atop the early 7th century BC San Jacopo tumulus altar: the mandible of a horse, a bronze knife, and four iron spits.[66]

Division and disarticulation in Etruscan evidence

In addition to the summary just presented, evidence for disarticulation and dismantling of sacrificial bodies exists in art and archaeology. I will now look at the evidence for division more closely, accounting for both bones and organic remains that are otherwise difficult to observe archaeologically.

BUTCHERY

Although the relationship between zooarchaeological assemblages is not well-understood at Etruscan sanctuaries, a handful of images do illustrate the butchery of animals for religious occasions. The most famous of these is the Ricci Hydria, which reflects four main steps in animal processing: the skinning of the animal, butchery with the removal of the

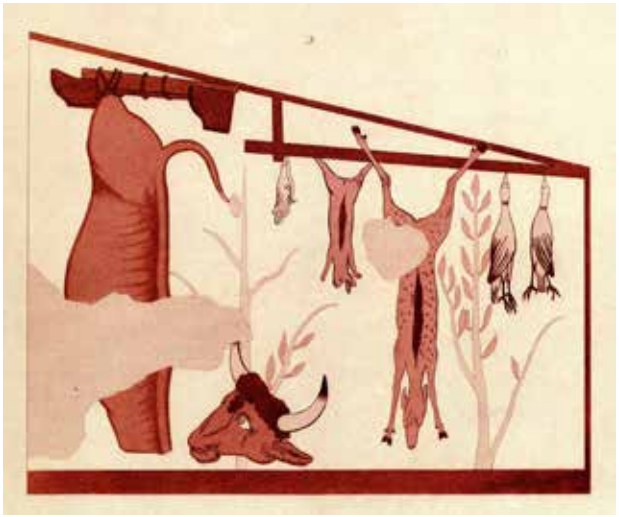

Fig. 2. Butchery process prior to a feast in the Tomb of Golini I. Orvieto (Volsinii Veteres). Water color. After Steingräber 2006, 211.

hindquarters, skewering meat and organs, and cooking the skewered flesh at an altar.

Related is a wall-painting from the 4th century BC Tomb of Golini I at Orvieto (Volsinii Veteres), which depicts the butchering process in preparation for a banquet.[67] It shows slaughtered animals, food preparation, bustling servants, Underworld gods, and five generations of the deceased's family (*Fig. 1*). An enthroned Aita (Hades) and Phersipnai (Persephone) oversee a feast attended by men of the Leinie family, with the deceased, Larth Leinie, arriving in a chariot to join

[64] Cencetti 2006.
[65] Bertani 1995.
[66] Bruni 2009; Sorrentino 2004.

[67] Barbieri 1987; Steingräber 1985, 278, no. 32. The paintings are in a poor state of preservation.

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Fig. 3. A statue of Fufluns with an animal skin laid across a table, with skull at its base. Volute krater from Bomarzo, c. 350–325 BC. © Antikensammlung, Staatliche Museen zu Berlin—Preussischer Kulturbesitz, with permission.

them. The left side of the chamber depicts servants preparing the feast. Gutted animals, evinced by longitudinal cuts for removing the internal organs, hang prior to skinning and further butchery:[68] a bovine, four birds, a hare, and a deer. The bovine has been decapitated and its lower hind legs removed, which may be a convenience on the part of the wall-painter, who had limited room to fit the large beast (*Fig. 2*). Granted, cranial and podial elements are frequently removed as butchery refuse, although they also receive special treatment during some sacrificial situations.[69]

On the next wall, a man chops something with a small hatchet, possibly part of an animal carcass, and further along, a servant pounds small pestles into a shallow basin on a three-legged stand. Although it is impossible to determine what food product the servant grinds in the basin, given the emphasis on butchery and processing elsewhere in the tomb, it may be that the man using the pestles is preparing minced meat, as Gunnel Ekroth has suggested for a related scene on the Ricci Hydria.[70] In the Golini I Tomb, the wall-painters illustrate elements of bodily dismantling and processing in connection with funerary banqueting, but clear sacrificial imagery is absent.[71]

SKINS

In addition to cranial and podial portions, animal skins were a product of butchery, but they also had religious significance. Animal skins seem to have been closely associated with the culturally significant figure of the *haruspex*. In some imagery, including bronze statuettes, haruspices wear a fringed mantle that appears to be an animal skin; for example, the 4th-centu-

[68] See Morton and Bednarek in this volume, *Chapters 2* and *9,* for the removal of the innards before further processing.

[69] For butchery processes in Greek sacrifice, see Ekroth 2008. On what may be the special treatment of podial elements, see Dibble 2018; Rask 2014, 279–282. For the treatment of the head in Greek sacrificial ritual, see below, and MacKinnon and Georgoudi in this volume, *Chapters 5* and *8*.

[70] Ekroth 2014, 230–231.

[71] Hugot 2016, 207.

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ry BC bronze votive statuette given by Vel Sveitus wears such a mantle.[72] This may suggest that haruspices received sacrificial skins as an especially iconic priestly prerogative. Skins may have been presented to divinities from sacrificial animals or hunted animals. At the Cannicella sanctuary, the articulated rear paws of a brown hare may attest to the removal of the skin with paws attached, and perhaps its dedication. In the same deposit, the metapodials and phalanges alone of two foxes were found.[73] Animal skins used as offerings do appear on a 4th-century BC Faliscan volute krater from Bomarzo (*Fig. 3*).[74] This lively image portrays a cult statue of Fufluns (Dionysos) at a table or altar and surrounded by satyrs and maenads.[75] A skin with head and hooves attached lies draped across the offering surface.[76]

SKULLS

On the Bomarzo Fufluns krater, an overpainted cow skull also rests against the base of the altar and at the foot of the cult statue. Viewers might imagine the skull as the remains of a skin offering similar to the one currently occupying the table, or as an offering or trophy in its own right. As was the case in Greece and Rome, there seems to be evidence for the display of *bucrania* in Etruscan sanctuaries.[77] Likewise, a 4th century BC glass ring stone shows the connection between animal heads and altars (*Fig. 4*).[78] The image portrays a warrior before an altar and snake entwined with a tree. A ram's head with horns attached rests upon the altar. A skin hangs from the tree. This iconographic motif represents Jason with the dragon and golden fleece.[79] While in some representations of the myth, the head and/or feet have not been removed from the skin, in a handful of Italian gems and sealstones, the ram's

Fig. 4. A warrior stands before a ram's head placed on an altar. Impression from the green glass ring stone. Hellenistic or Roman date. © Cabinet des Médailles, Bibliothèque nationale de France, Paris, with permission.

head has been placed directly on an altar before the tree.[80] In Greek contexts, the presentation of heads or body parts on an offering surface is a form of *trapezomata*, although heads could be burned on the altar as well.[81] We may be seeing something similar here: archaeological and visual evidence suggest that in Etruria offerings and ritual items were sometimes placed on altars (where fires occurred), and in other cases the distinction between altars for fires and offering tables is visually ambiguous.[82] As for the ring stone, the visual representation calls to

[72] van der Meer 2011, 39 and n. 177; de Grummond 2006b, 35–36. On the connection between the dress of the Etruscan *haruspex* and Greek shepherds in leather mantles, see Bonfante 2003, 53–54.

[73] Wilkens 2008. The rest of the bones from the deposit, however, do not bear clear indicators of sacrificial procedures. The main argument for their religious significance seems to have been their find-spot at the Cannicella shrine; that the assemblage was a mixed deposit which included the remains of dedicated skins, cannot be completely discounted.

[74] Berlin, Staatliche Museen F 2959, from Bomarzo, 350–325 BC; *LIMC* III (1986), 534, s.v. Fufluns, no. 46 (M. Cristofani); Hugot 2003, 716, CF11; Isler-Kerényi 2014, 125–135.

[75] Etruscan imagery includes an iconographic tradition that shows cult statues as torsos on an altar, base, or *trapeza* block, see Rask 2011.

[76] On an Etruscocampanian black-figure amphora in Siena a goddess is seated before a flaming altar; her stool is draped with an animal skin (Museo Archeologico 38480; Hugot 2003, 682, CN13). See MacKinnon in this volume, *Chapter 5*, for a discussion of religious use of animal skins and for butchery leaving feet and heads attached.

[77] See Zachari's paper in this volume, *Chapter 7*.

[78] Paris, Cabinet des Médailles 182 (Luynes.183), Bibliothèque nationale de France; Hugot 2003, 757, Sca5; Richter 1968, no. 848.

[79] *LIMC* V (1990), 632, s.v. Iason, no. 24 (J. Neils).

[80] For example, the fleece with head/feet attached: *LIMC* V (1990), s.v. Iason (J. Neils), no. 32 (p. 632, Attic kylix), no. 36 (p. 632, Attic krater), no. 42 (p. 633, South Italian krater). Depictions of an altar with ram's head before the tree include: *LIMC* V (1990), s.v. Iason (J. Neils), no. 27 (p. 632, Republican glass paste gem), no. 28 (p. 632, Imperial carnelian intaglio).

[81] Ekroth 2017; Gill 1974.

[82] Visual evidence records *thymiateria* placed on altars (e.g. a *thymiaterion* on burning altar: *ThesCRA* I, 267, s.v. 'Rauchopfer', no. 48 [E. Simon & H. Sarian]). Small statues appear atop altars as well. For example, a bronze mirror shows a female statue (Turan?) on an altar (Gerhard 1974, Pl. 239); the curving features at the foot of the statue have been variously

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mind animal skins and cranial parts offered and displayed in sanctuaries, as well as metonymic allusions to sacrificial activity in the manner of *bucrania*. It also articulates a visual link between an animal's head and the altar.

In addition to these visual representations, excavation suggests that cranial parts received special treatment in Etruria.[83] The most striking example of cranial deposition comes from the Sanctuary of Pyrgi, the port of Caere. The main sanctuary was dedicated to Uni (Hera/Astarte) and Thesan (Leukothea?), but the southern area contained numerous small shrines, altars, and deposits, which seem to relate to a variety of other deities. It was here that excavators discovered bovine skulls along the northwestern edge of the southern sanctuary, near Feature Pi, Altar Zeta, and Altar Tau (*Fig. 5*). The skulls, with horns still attached, were placed in a rough line and with their muzzles pointing to the south. It seems that they were deposited over a long period of time, according to the stratigraphic analysis by the excavators. The earliest skull dates to the second half of the 5th century BC, others date to the 4th century BC, and the last may date as late as the 2nd century BC.[84] The skulls derive from older animals, around 10–12 years old, with several exhibiting deformation in the teeth.[85] The excavators emphasize the strong conservatism of the ritual due to a) placement, with the animal head always oriented with its muzzle to the south, b) anatomical selection and deposition of the head with horns attached, and c) the persistent use of the same aged animal victim.[86] Differential treatment of the head may also be evident in Etruscan necropoleis. Not only do sculpted skulls appear on tombs and sarcophagi in the manner of *bucrania*,[87] but in the Hellenistic phase of the Vulci necropolis, excavators found what may be evidence for the special treatment of skulls (four bovines, three horses).[88]

Finally, the 1st-century AD Roman author Columella records a detail worth mentioning, with the necessary caveat that the non-Etruscan antiquarian wrote at a fairly late date. In his *De re rustica*, he describes the apotropaic use of animal parts to protect crops from various dangers and unlucky portents. He attributes certain techniques to famous mythical figures, including Etruscan seers:

> And experience, the teacher, has imparted to farmers how to calm the furious winds and avert
> the storm with Etruscan rituals. For this reason, in order that harmful Rubigo might
> not burn the green plants, it is placated with a nursing puppy's blood and entrails
> (*sanguine lactentis catuli et extis*). For this reason, Etruscan Tages is said to have
> attached the head (*caput*) of an Arcadian ass, stripped of skin (*nudum cute*), at the
> boundary of a field, and, in order to avert great Jupiter's thunderbolts (*fulgura*), Tarchon
> often surrounded his residence with white bryony (*vitibus albis*). For this reason,
> Amythaon's son, whom Chiron taught so many things, hung nocturnal birds on crosses
> (*nocturnas crucibus volucres*) and forbade them from crying their deadly songs from
> high rooftops.[89]

Here Columella describes practices which he labels as "Etruscan" and which were intended to keep away crop diseases, damaging weather, and ill-omens. The animals employed include an ass, a puppy, and night-flying birds, possibly owls.[90] Additionally, a plant serves to avert the thunder and lightning of Jupiter (the Etruscan Tinia). It is unclear from what source Columella derives these details, but they accord with generally accepted Etruscan concern for omens and lightning. Whether or not Etruscan ritual texts or Tagetic books described these activities, Columella records a tradition that a skinned head from an ass possessed an efficacious aspect that protected farmers from non-human powers. Our sources do not make clear whether heads in Etruscan sanctuaries and cemeteries possessed a similar efficaciousness.

MEAT EATING AND MEAT

The division of the limbs and meat bearing portions of sacrificed animals is one of the more theorized and identifiable features of Greek sacrifice. There is evidence of a similar nature from Etruria, although we must wait for further publications before we can truly treat the subject in more systematic detail. At Tarquinia's Monumental Complex, the hindquarters

interpreted (e.g., Hugot 2003, 728: flames in the shape of horns) but may represent metal fixtures.

[83] For example, at the Sanctuary of Monte Li Santi-Le Rote at Narce, two cattle skulls were placed to the north of the temple building and are stratigraphically dated to the 2nd century BC. For bibliography relating to the sanctuary, see De Lucia Brolli & Tabolli 2015, 190.

[84] Ambrosini & Michetti 2013, 147–149.

[85] Sorrentino 2005.

[86] Ambrosini & Michetti 2013.

[87] van der Meer 2011.

[88] Cerilli (2014, 47) speculates "*potrebbe essere connessa ad attività rituali svolte in quest'area della necropolis, come il sacrificio di buoi e di cavalli, e la deposizione intenzionale di parti anatomiche degli animali, con particolare riguardo al settore craniale.*"

[89] Columella, *Rust*. 10.342–347. My translation.

[90] Traditions involving Amythaonius are not well-attested in Etruria. Ovid's *Fasti* (4.901–909) refers to Roman communities burning the entrails of a dog and sheep during the Robigalia.

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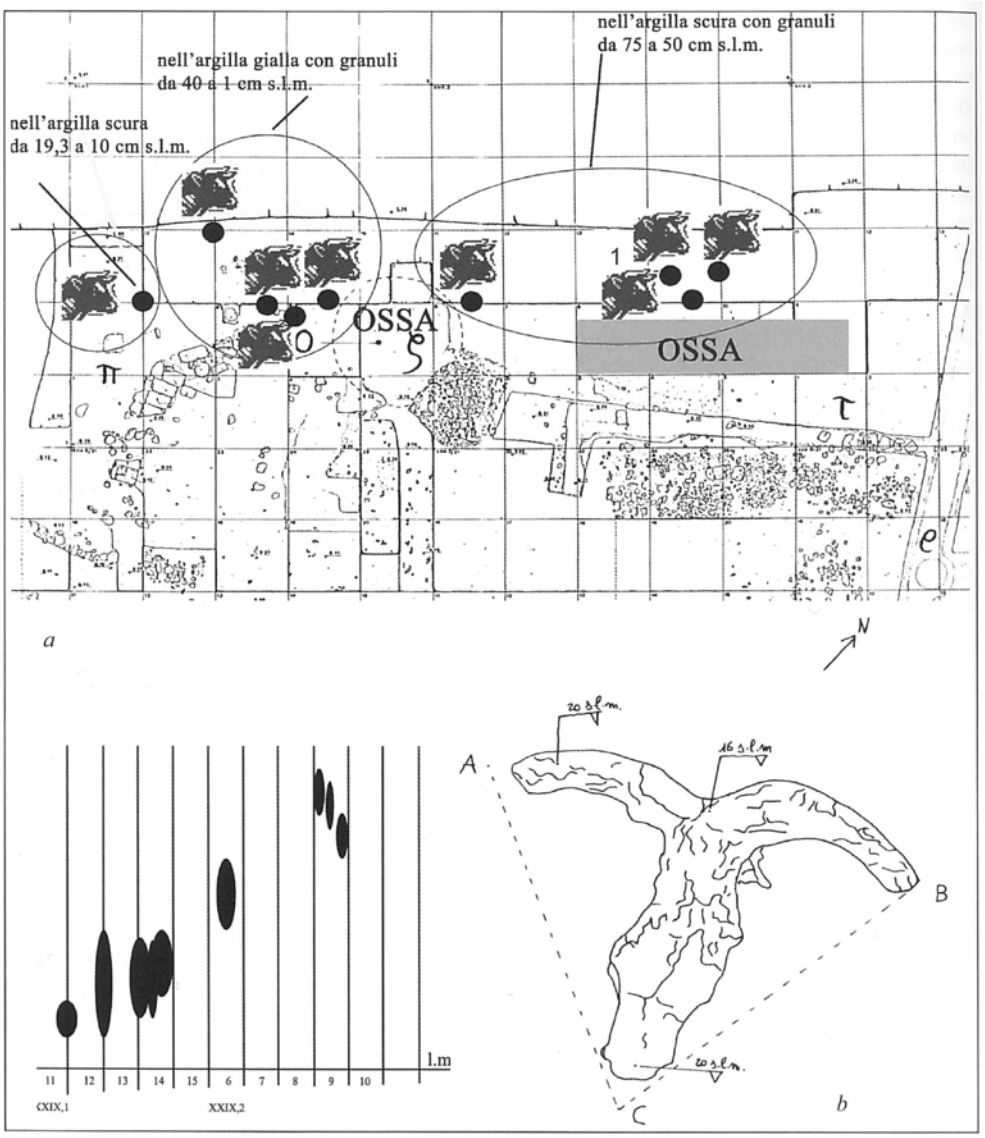

Fig. 5. Map showing locations of cow skulls in the South Sanctuary at Pyrgi, 4th–2nd century BC. After Ambrosini & Michetti 2013, 148, fig. 15.

represent the least attested anatomical portion (11%; the femur and coxa least common),[91] while anterior bones make up the smallest percentage of the bovine remains.[92] This evidence suggests the differential treatment of femurs and front legs, and that meat-bearing portions played a role in Etruscan sanctuaries.[93] It should be noted, however, that the particularly diagnostic portions of long bones (i.e., the ends) do break off, or remain unfused in younger animals; this means that the percentages of identified femurs and other long bones can appear skewed, especially in older publications.

In Greek feasting contexts, various evidence indicates that legs were socially significant, with the entire limb—from haunch to hoof—depicted as an honorary portion.[94] It is not possible to make a comparable claim in Etruria, although a black-figure amphora from Fiesole, dating to *c.* 500 BC, depicts a related idea.[95] A man with a knife in his right hand holds forth an animal's complete hind leg above a tripod. The

[91] Bedini 1997, 114.
[92] Bedini 1997, 119.
[93] Hugot 2016 argues for an Etruscan *cuisine de sacrifice* based on bones with cut marks and burning in sanctuaries, but does not address anatomical selection and differential exposure to heat (e.g. extended exposure to flame in contrast to cooking with meat on the bone).

[94] Tsoukala 2009. See also Lissarrague's paper in this volume, *Chapter 4.*
[95] Paris, Musée du Louvre 3510; Pottier 1901, E 758, 72, pl. 56; Hugot 2003, 626, Z5.

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Fig. 6. Relief showing a banquet with a burning altar in the center of the scene. Stone funerary monument from Chiusi. © Musée du Louvre/Pierre et Maurice Chuzeville, with permission.

meat-bearing leg and tripod form the composition's central axis, creating a visual focus.

Roasting spits have been found in sanctuaries such as Pyrgi and Narce, where they were presumably used and/or presented as votives.[96] Many spits have also been preserved in tombs; ideologies of meat consumption were a major feature in Etruscans' wealthy funerary assemblages.[97]

A stone relief from Chiusi dating to the late 6th century BC, probably part of a sarcophagus, makes the connection between feasting and sacrifice explicit.[98] It shows satyrs reclining on couches and participating in a banquet (*Fig. 6*). The altar stands at the center of the banquet, amongst feasters and dancers. The nearest diner roasts something in the flames; his right hand grips tongs (with meat?), while his left holds a long object to the fire. Metal tongs appear with cooking and banqueting utensils in Etruscan tombs. While the happy-go-lucky scene does follow the Attic tradition of civilized satyrs, the presence of the burning altar in the midst of the banquet is not an especially common Attic motif.[99] Both Etruscan and Attic workshops rarely visualized feasting activities and sacrificial altars together in the same space. Except for the presence of the burning altar, this image follows typical Etruscan funerary banqueting formats. In fact, the relief is part of a group with two other reliefs that appear to be the short ends of a sarcophagus: one shows a sacrificial procession at an altar, the other a rowdy banquet. The two themes from the short ends overlap here on the monument's long side; in this remarkable case, the ideological link between sacrifice, feasting, and funeral symbolism has coalesced.

ORGANS AND SOFT TISSUES

In addition to deboned meats, other organic soft tissues were important in Italian ritual killing, but do not appear in the zooarchaeological record. The realities of archaeological preservation have led us to focus on bones and anatomical elements, given that decomposition leaves little behind from the organic portions of the carcass. Literary sources indicate that in some Roman rituals only soft tissue from the sacrificed animal was burned on the altar.[100] Internal organs also seem to have carried great weight in Etruscan religion and culture,

[96] In 4th-century BC Pyrgi, in the southern area, a pair of skewers appeared with the Copette Deposit at Sacellum Beta and another pair was found at the western piazza (Ambrosini & Michetti 2013, 128). A number of knives were found throughout the region as well. Skewers likewise occur at the Sanctuary of Monte Li Santi-Le Rote at Narce: De Lucia Brolli & Tabolli 2015, 32.

[97] On objects related to meat preparation and consumption in late Iron Age Etruria, including knives and miniature axes, as well as spits and firedogs, see Riva 2010, 90–93 and 155–159. She argues that evidence for meat consumption and wine-drinking in tombs "signal the ritual authority to carry out sacrifices associated with the deceased" (155).

[98] Paris, Musée du Louvre MA 3610, sarcophagus from Chiusi, 6th–5th century BC; Donati & Rafanelli 2004, 163, no. 214. Maccari (2015) argues that this slab is indeed authentic, despite earlier speculation that it might be a forgery.

[99] A 5th-century BC red-figure stamnos attributed to the Copenhagen Painter shows an altar between the couches at a banquet, although the painter depicted no flames and no one interacts with the altar (Oxford, Ashmolean Museum 1965.127; *BAPD* 202939; *ThesCRA* II, 244, s.v. "Le banquet en Grèce", no. 175 (P. Schmitt Pantel & F. Lissarrague). I thank Gunnel Ekroth for this reference.

[100] Scheid 2007, 116.

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particularly for their use in divination.[101] Thanks to their frequent appearance in Late Republican texts, divinatory objectives have been viewed as the central component of Etruscan sacrifice.[102] Such use of Roman authors should be undertaken with caution, however, as their sacrificial discourse may say more about their own culture's concerns and anachronistic projections, rather than any fundamental characteristic of Etruscan practices.

Cicero describes native texts (revealed by the prophet Tages) addressing the *haruspicinae disciplina,*[103] and, as noted above, Etruscan literate religious specialists such as Laris Pulenas added to the body of literature on the topic. Historically speaking, given the known political role of Etruscan haruspices (in both Etruria and Rome),[104] we might speculate that, in contrast to sacrificial meat and meat-sharing in Greece, divinatory animal organs served as a major means to social and institutional influence in Etruria. Latin authors narrate some details concerning Etruscan haruspices engaged in extispicy, but these late sources do so in fairly sensational terms. Pliny the Elder relates a tradition that a *haruspex* from the Volterran Caecina family received a positive sign during a sacrifice, when snakes slithered out from the animal's internal organs.[105] In Pliny's story, the divine sign literally leaps straight from the entrails. Likewise, Lucan gives a highly dramatized account involving the Etruscan priest Arruns of Lucca, whose sacrifice of a bull on behalf of the Romans is saturated with a variety of omens;[106] notably, when Arruns sacrificed the bull, its blood had turned black. Further details about animal entrails appear in a later Roman source quoted by the antiquarian Fulgentius the Mythographer, belonging probably to the 6th century AD or after. Fulgentius elaborates on the meaning of "spirit stones", *manales lapides*:

> Labeo, who in fifteen books explained the *etrusca disciplina* for Tages and Bacitides,
> relates: "when the fibers of the liver were ruby-red in color, then it was necessary to drag
> along the spirit stones." That is, the things which the ancients used to drag along their
> borders in the manner of rollers, in order to end a drought.[107]

Labeo's quote, while sadly brief, details the physical appearance of the liver and the appropriate ritual response. Reference to the *manales lapides*, stones used to end drought, reflect the typical concerns that divination could address.[108]

In all three of these Roman sources, then, the rhetorical anchor of the sacrificial story is the way that organs functioned as signs, embodying divine truths and messages. Despite the popularity of the topic in Roman texts, it remains difficult to identify authentic Etruscan details about sacrificial organs in Roman authors. Still, this element of body manipulation is very familiar from Etruscan iconographic representations, where the liver, as the divinatory organ *par excellence*, received artists' attention. Terracotta and bronze liver models appear starting in the 4th century BC, and funerary representations of haruspices, such as the sculpted Volterran Aule Lecu, hold livers as a sign of expertise.[109] The appearance of livers in priestly funerary art further reinforces the social symbolism of this particular animal part. The bronze Piacenza Liver, a map of sorts for the *haruspex*, suggests a certain degree of canonization for the rite, and we are certain that the topic was covered in great detail by the *etrusca disciplina*. Yet, we are left to guesswork when it comes to the actual rituals and interpretive systems tied to the reading of entrails.

As an Etruscan narrative motif, liver divination appears in several visual media, including inscribed and sculpted bronze artifacts. While some of these scenes are non-specific and generalizing, some include otherwise unattested details, such as the existence of a tradition involving a *haruspex* named Pava Tarxies, depicted on a mirror from Tuscania (*c.* 300 BC), surrounded by a group of other named figures.[110] On a famous late-5th-century mirror, the winged *haruspex* Chalchas under-

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[101] van der Meer 2011, 37–42.

[102] Briquel 2004, 144: "*L'examen des entrailles par l'haruspice, après la mise à mort de la bête … c'est un point essentiel de cet acte rituel.*"

[103] Cic. *Div*. 2.50. On Etruscan divination, see also Haack 2017; de Grummond 2013; Maggiani 2005; Briquel 1990.

[104] Turfa 2006b outlines the basic prosopographic evidence and bibliography for Etruscan haruspices, based on the epigraphic and archaeological data.

[105] Plin. *HN* 11.197: "it is handed down [*traditur*] that when someone at Volterra named Caecina enacted a sacrifice, snakes slipped out from the victim's internal organs—a happy portent." Livy (5.21), while admitting the story's mythical character, connects the theft of a sanctuary's sacrificial organs to the downfall of Veii.

[106] Luc. 1.584–637.

[107] Fulg. *Expositio sermonum antiquorum ad grammaticum calcidium 4: Labeo qui disciplinas Etruscas Tagetis et Bacitidis quindecim uoluminibus explanauit, ita ait: "Fibrae iecoris sandaracei coloris dum fuerint, manales tunc verrere opus est petras", id est quas solebant antiqui in modum cilindrorum per limites trahere pro pluuiae commutandam inopiam*. My translation.

[108] The passage is also useful given Fulgentius' reference to his source material, the fifteen books on Etruscan religion by the Roman Labeo. The identification of Labeo has been controversial, with 1st-century BC Marcus Antistius Labeo and 3rd-century AD Cornelius Labeo both considered, see Turfa 2012, 290–291.

[109] Aule Lecu: Volterra, Museo Guarnacci; *ET* Vt 1.128, 1.129 (*CIE* 81, 92). For liver models, Maggiani 2005, 54–56.

[110] In addition to Pava Tarchies, the labeled figures are: Avl Tarchunus, Veltune, Rathlth, and Ucernei. Florence, Museo Gregoriano Etrusco 77759; Turfa 2012, 22, fig. 1. de Grummond 2006a, 26–27, fig. II.2.

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Fig. 7. Inscribed bronze mirror, showing Calchas inspecting a liver. The lungs and trachea lay on the table. From Vulci, late 5th century BC. After Gerhard 1974, pl. 223.

takes the examination of animal organs (*Fig. 7*).[111] Chalchas closely investigates a liver in his hand, and the lungs and trachea lay on the table before him. Although the tabled organs may simply reflect the removal and processing of the viscera, given that Chalchas pays them little attention, authors such as Cicero report that the lungs of sacrificial cattle received inspection during Roman divination.[112] Our lack of Etruscan literary sources means that we know little about the religious use of these other organs and whether such were included among Etruscan *exta*. If the organs depicted on Chalchas' table were commonly employed in Etruscan haruspication at this time period, then we can add lungs to the important internal portions of the animal's body that do not survive in the archaeological record. Whether the other flesh of the animal, killed for divinatory purposes, was subsequently eaten cannot be determined from our Etruscan sources.

BLOOD AND FAT(S)

Blood also decomposes, so without texts and images it has been nearly impossible to uncover in the archaeological record. In Greece, we see that blood received differential treatment, splashed onto the altar, consumed, or used for its purifying power.[113] Blood could also be a direct offering, and often did not require the sacrificial infrastructure of a shrine's altar. On Mykonos, for example, participants at a sacrifice cut the throats of eight lambs and directed their blood to run into the Acheloos river (whereas the sacrifice of a sheep and two lambs occurred at the altar).[114]

Despite Lucan's mention of the black blood seen by Arruns during animal sacrifice and Columella's reference to the blood of a puppy, we have limited evidence for blood rituals in Etruria. Some art objects seem to copy Greek iconographic motifs depicting the purification of Orestes by pig blood, but such scenes are generally rare. On the other hand, in discussions of Etruscan funerary sacrifice, blood frequently receives emphasis, thanks to the 3rd-century AD Christian apologist Arnobius.[115] Among a longer list of religious charlatanry, Arnobius warns his readers that:

> in Etruria it is promised in the Acherontic books that, by giving the blood of certain
> animals to certain numinous powers, souls become divine and are led away from the laws
> of mortality ... [but] it is not possible to choose an eternal spirit ... let Etruria sacrifice
> however many victims it wants.[116]

The passage, part of a Christian polemic, criticizes competing religious and philosophical traditions that provide guidance on the soul's fate after death.[117] According to Arnobius, in order to reach heaven (and the soul's immortality), philosophers lived appropriate lifestyles, Magi compelled higher powers through prayers, and the Etruscans offered blood to specific deities. At the time Arnobius wrote, some philosophers and magicians practiced theurgy, wherein soteriology, ascent to heaven, and assimilation with the divine were prevalent concerns.[118] Certain theurgists incorporated sacrificial processes into their theories. As Ingvild Gilhus argues, "what the new theurgical theories about sacrifice had in common with the *taurobolium* and the mysteries of Mithras was that sacrificial animals had become instruments of human spiritual progress."[119] It is not unreasonable, then, to view Arnobius'

[111] Vatican, Museo Gregoriano Etrusco 12240; Gerhard 1974, Pl. 223; de Grummond 2006a, 30–32, fig. II.9.
[112] Together with the heart and liver: Cic. *Div.* 2.29.
[113] Ekroth 2005. See also Larson in this volume, *Chapter 11*.
[114] Jameson 1991, 203; *CGRN* 156. Blood is likewise one of the most common ritual ingredients in the Greek magical papyri (Salayová 2017, 199.)
[115] Arn. *Adv. nat*. 2.62; Serv. 3.168. Camporeale 2009; Warden 2009.
[116] Arn. *Adv. nat*. 2.62: *Quod Etruria libris in Acheronticis pollicentur, certorum animalium sanguine numinibus certis dato divinas animas fieri et ab legibus mortalitatis educi ... nec ... perpetuitatis possit et spiritum subrogare ... caedant licet hostias quantas libet Etruria*. My translation.
[117] Briquel 2007, 157.
[118] Addey 2014; Bremmer 2014.
[119] Gilhus 2006, 134.

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portrayal of Etruscan blood sacrifice as particularly timely for the 3rd century AD. We can only speculate on the original religious and historical context of the documents Arnobius mentions (*libri acheronti*). They cannot be any later than the 3rd century AD,[120] but could be much earlier, given that Greek ritual texts dealing with the soul's afterlife and divinity date as much as 800 years prior to Arnobius. The deification of individuals through death was familiar to Italians by the 1st century BC,[121] but primary data from earlier Etruscan history about such rites is otherwise lacking.

Although the textual sources are problematic, organic residue analysis may provide an alternative for studying primary data related to Etruscan blood use.[122] Using microscopic and chemical analysis, archaeologists are able to trace blood proteins on tools, ceramics, stone, and in soil samples.[123] Ongoing refinement of sampling and analysis techniques allow scientists to identify animal species, provided that burial contexts and soil chemistry have not degraded the residues. Although a number of altar types in Etruria have been interpreted as sacrificial infrastructure for blood offerings, they would have been usable for other liquid libations as well.[124] We lack unambiguous visual representations of blood offerings at such altars, and no surviving texts refer to their use. We can expect, however, that more examples of altars will emerge through excavations; when freshly uncovered, their channels will be prime candidates for residue analysis, in order to test the long-held blood offering hypothesis.

Another organic element that had an important sacrificial function was fat, well-attested in Greece epigraphically, visually, and in literary constructions.[125] In the Greek sacrificial landscape, fat is clustered at the altar, together with the *splanchna*, femur, and sacrum. Fortunately, the archaeological sciences can explore fat's presence thanks to lipid analysis.[126] In addition to the lipids found in plants and animal by-products (e.g. dairy), archaeological scientists use lipids to differentiate between the presence of terrestrial and aquatic animals. Fatty acids aid in identifying specific organisms, so that fats can be assigned to large domesticated herbivores, such as the standard sacrificial animals: goats, sheep, pigs, and cattle. In addition to lipids from animal fat itself, bones that are burnt in fires exude fats, leaving behind identifiable residue in archaeological features such as hearths.[127] We can expect that in the future the archaeological sciences will allow the identification of soft tissues and organic animal remains otherwise lost in the archaeological record, which would further illuminate the ritual use of animal bodies.[128]

Theoretical discussion

I would like to make three points based on this overview of Etruscan data, with Greek sacrificial studies as a backdrop. First, as this summary intimates, Etruscans employed animal bodies in their interactions with non-human powers. Although few Etruscan textual sources remain, images and archaeology show the special treatment of various parts of the animal body following the animal's demise. This multiplicity should nuance our understanding of the three categories of zooarchaeological contexts for Greek sacrifice (altar debris, consumption remains, butchery refuse), given that many animal parts were religiously useful and symbolic. Whereas Durand saw sacrificial meat moving outwards from a center to overlay the urban civic body, I see alternative social and spatial projections. Thanks to a variety of sacrificial acts, animal bodies map out a religious topography, with flesh, skin, blood, fat, and bones marking space within and without sanctuaries. Calcined bone might surround altars, while horns become altars themselves. Deliberately buried bodies covered by tiles beneath the ground memorialize past rituals and significant spaces, in contrast to differently marked pits filled with consumption refuse. Cloaks made from skins follow the transitory pathways of the haruspices who wear them, while organs and skinless heads strengthen and empower agricultural borders. Sacrifice marks natural geography as well, with blood ritualizing the very rivers of the landscape.

Second, archaeological and visual materials encourage us to reformulate the sacrificial matrix that McClymond proposed, a framework she developed primarily through textual analysis. She argued for seven procedural forms that frequently appear in sacrificial rituals: selection, association, identification, killing, apportionment, heating, and con-

[120] The earliest references to the Acherontic books comes from Arnobius (3rd century AD) and Servius (late 4th century AD, Serv. 8.398), although, given a reference in Servius (3.168), it is speculated that both authors derived their information from Labeo. As Dumézil (1996, 668) warns, the Latin adjective *acheronti* may be a non-Etruscan appellation and means of categorizing the texts, rather than a native Etruscan reference to specific works or collections.

[121] De Jong & Hekster 2008, 83. See King (2020) for the deification of the Roman dead.

[122] McGovern & Hall 2016; Evershed 2008.

[123] Malainey 2011, 219–236.

[124] Camporeale 2009, 221; Comella 2005, 166–171. Additionally, drains near altars in some sanctuaries have been interpreted as infrastructure for blood offerings, at sites such as Tarquinia's Edificio Beta in the "monumental complex" (Pian di Civita) and Veii's Portonaccio sanctuary. They may have had other functions, used for non-blood liquid offerings, purificatory rituals, or for cleaning purposes.

[125] Morton 2015.

[126] Craig *et al*. 2011; Malainey 2011, 201–218.

[127] Kedrowski *et al*. 2009.

[128] For an example of residue analyses used to study ancient ritual, see Garnier *et al*. 2010.

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sumption. Our overview of ritual killing suggests that several of these major procedures sometimes do not appear, such as heating and consumption. In fact, the ritual participants given such weight by McClymond during the apportionment phase need not be present;[129] instead, apportionment procedures sometimes appear as division and distribution, without an emphasis on sharing the victim amongst social actors. Archaeological methods result in a slightly different laundry list of sacrificial procedures that make up an alternative matrix of connected events, especially representing post-death actions: excavators trace the selection of the animal, transportation to the sacrificial site, killing, butchery, anatomical selection, partition, processing, differential treatment of the whole or parts, and distribution to special rituals, places, or actors. Not all of these stages need to be highly ritualized; for example, the symbolic treatment of a head contrasts with dumping consumption debris in a pit. Ultimately, these procedures apply to a wider range of sacrificial activities and cultural contexts than McClymond's original selection of activities. They offer greater theoretical flexibility and variability in interpretation. For Greece and Italy, they seem to better account for the evidence.

Finally, in animal sacrifice, we find ritualized activities that require the death of the animal in order to acquire some element from the animal body, which usually had a specific function in the overall process. Its use or manipulation accomplishes something, as practitioners use it to *do* or act upon the visible and invisible world: blood transforms, skulls protect, meat honors, and so on. Following Frankfurter, Etruscans transformed animal bodies through a series of actions or contexts; during interactions with non-human powers, they killed animals and the processed, dismembered bodies resulted in useable or potent substances.[130] In contrast to Frankfurter, I hesitate to apply the phrase "make sacred" in the Etruscan context due to our lack of emic paradigms. Even in Greece, it is not always clear how and why exactly animal bodies become transformed and powerful. In some cases it must be that sacred substances are made to exist on earth through contact with divinity, as when Greeks treated items associated with the gods or shrines as *ta hiera*. For the Etruscans, sacrifice made animal organs swollen with divine messages. In other cases, the processed animal body may have possessed inherent efficaciousness otherwise unknown to us. Rather than transformation, *already* powerful or symbolic animal bodies perhaps become useable simply through the acts of processing and rendering. Some of the resulting materials may have held other types of meaning, such as the *haruspex*'s animal skin cloak, a visual marker of the ritual expert's social position and relationship to the divine. In any case, the nature of animal parts in ancient sacrifice, and the logic behind their potency, deserves further study.

[129] McClymond 2004, 359–361.

[130] Frankfurter 2004, 512–513. For the problem of sacralization in Hubert and Mauss' in theory, see Kirk 1981, 68–70.

Conclusion

Archaeological evidence from Etruria, combined with a reconsideration of Greek rituals, suggests that sacrificial practice was a rich, flexible set of activities. Especially significant is the processing and dividing of the potent animal body. Most forms of animal sacrifice hinged on the manipulation of the animal body in some way, frequently with division or disarticulation of some form. The surviving data suggests that, for the Etruscans, there existed religious value in skins, skulls, bones, meat, organs, and blood. Ongoing excavation and developing technologies are bound to further nuance historical examinations of sacrificial contexts in both Etruria and Greece.

Critical assessment of partition and processing has wider implications for the study of ancient Mediterranean sacrifice. I have argued that humans employed animal bodies when they engaged non-human powers in a variety of contexts. Animal sacrifice was a malleable series of procedures and activities that enabled humans to act on the world and interact with these powerful forces.

KATIE A. RASK
Department of Classics
Ohio State University
rask.4@osu.edu

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Indices

In the general index, some ubiquitous words like "sacrifice" and "ritual" have been omitted. Given the preferences of certain authors for either transliterations or the original Greek, readers will have to consult both the general index and the Greek index in order to identify all cases of e.g. "leg" and σκέλος.

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